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RETRO GAMER*

ISSUE SEVEN

RETRO GAMER* ISSUE SEVEN
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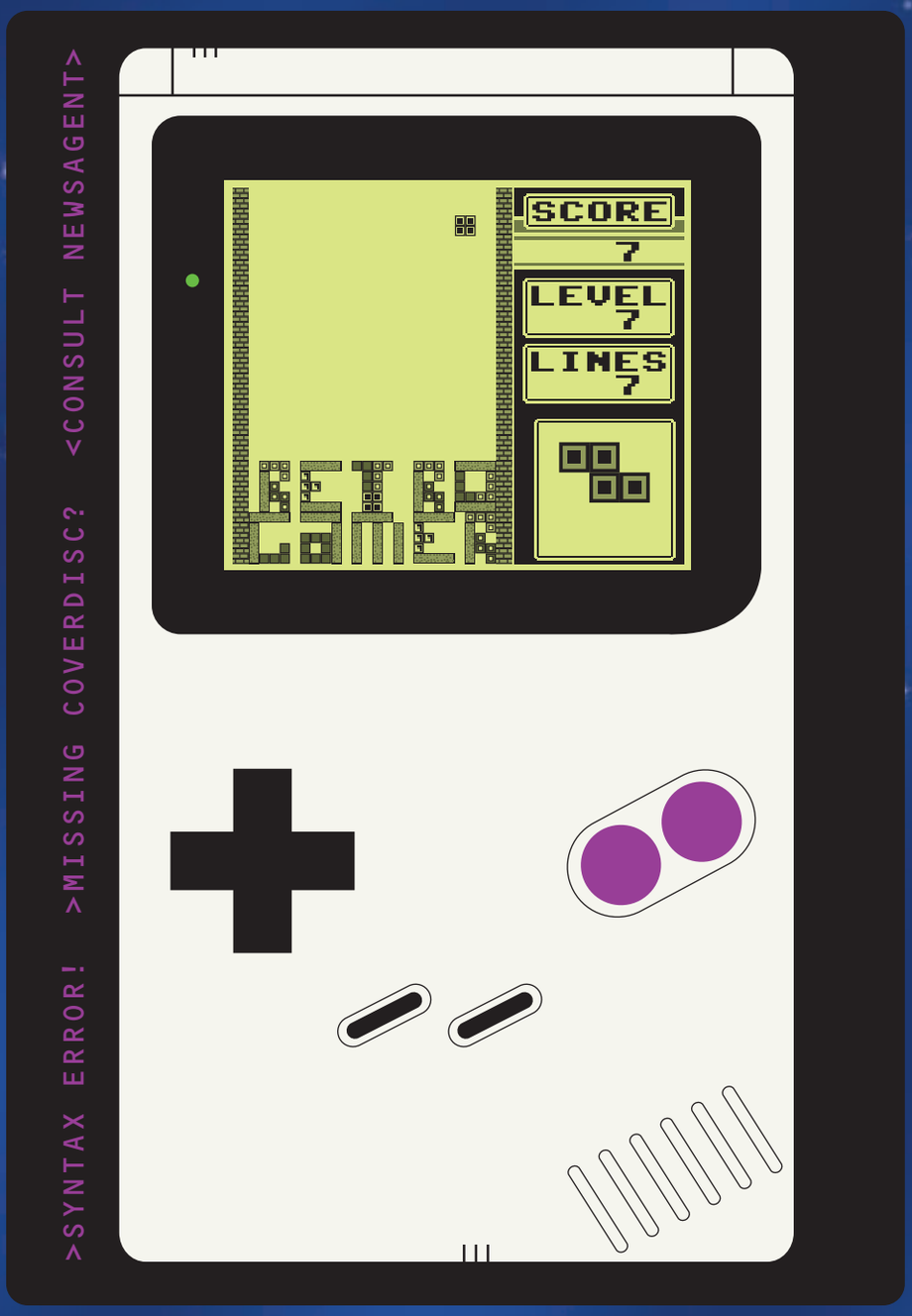

THE ATARI ST FAMILY

POWER WITHOUT THE PRICE?

CLASSIC GAMING EXPO UK

THE SHOW & ITS STAR, MATTHEW SMITH

COIN-OP CONVERSIONS

WHICH HOME VERSION WAS BEST?

PLUS LOADS MORE:
THE LEVEL 9 STORY CONTINUED,
KEITH CAMPBELL'S DESERT ISLAND DISCS
& ARCADE HUNT UPDATE

eMag

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hello

Welcome to another installment in the Retro Gamer saga. I'd like to start by saying a big hello to all of those who attended the Classic Gaming Expo UK, especially those of you who kindly took the time to pop over and speak to us. And as you found out, we don't bite. It was greatly humbling to hear all of your positive comments. For every Edge reader who thinks that the magazine is "utter horseshit", there must be a thousand Retro Gamer readers who disagree. Outnumbered *and* outgunned, my friend.

Anyway, back to the show. Several of you had suggestions for future features, and for the most part, these have been taken on board. You can look forward to features on unreleased games, the Panasonic 3DO and Imagine Software, as well as some others that we are keeping up our sleeves for now. We've also managed to secure some quality coverdisc content, so there's plenty to look forward to in the upcoming months.

Right, I've shed enough blood, sweat and tears for one month. Enjoy the magazine and keep the feedback flowing.

MARTYN CARROLL
EDITOR

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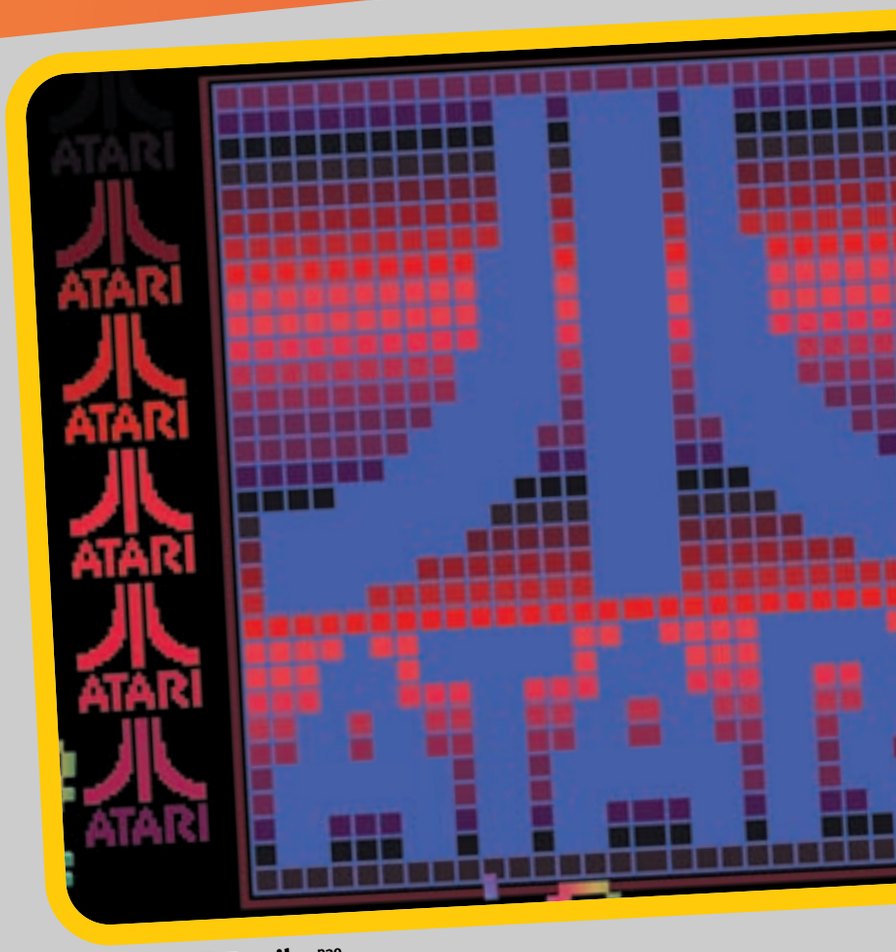

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RETRO NEWS

NEWS-OLA[RG]

It's Alive!

Intellivision games heading to PS2

Budget console publisher Play It is to release Intellivision Lives on the PlayStation 2 this September. This complete collection features over 60 classic games, including some that were never originally released, and all for just £10.

As is the norm for this type of package, Intellivision Lives lets the player loose in a 3D environment – in this case, Hal's Pizza Place – and it's from this typically 1980s' setting that the various games can be selected. Each game is emulated perfectly, and presented with the original box art and a production history. And that's not all. Many of the games feature a so-called 'play goal', which usually involves attaining a certain high score that unlocks bonus content, such as an Intellivision TV commercial or a hidden game. Finally, there's a detailed history of the console narrated by Keith Robinson, president of Intellivision Productions Inc.

While digging up news on Intellivision Lives, we also discovered that Play It is to release the original Last Ninja trilogy on PS2. The graphics will be enhanced, but the gameplay and puzzles will remain intact. Again, this will be released in the next few months and priced at a very economical £10. It will also serve as a perfect appetiser for the fully 3D'd up Last Ninja 4, due out next year.

Rock the Capital

Back in Time 2004 hits London

A quick reminder that this year's Back in Time Live event is taking place in Central London on Saturday, 11th September. BIT Live is fast becoming a key event for both C64 and SID music fans, with more and more attending every year since its humble beginnings back in 2001. At its helm is Chris Abbott, who now acts as the legal 'guardian' and publisher for many of the retro game and SID soundtracks.

This year's event is billed as "blending retro gaming and dance music", with new renditions of classic Commodore 64 game anthems being played by live bands. Headlining will be the now-legendary Press Play on Tape, with support from Visa Röster, Stuck in D'80s (featuring Mark Knight and Ben Daglish), The C64 Mafia and Natasha Samsudin-Mackenzie. After last year's trip to the south coast, the 2004 event will be held at LSO St Luke's, located on London's Old Street (EC1V 9NG). Tickets are £25 each, and every attendee will also receive a copy of Nexus 6581-II, a four-track CD of Commodore C64 remixes arranged by Reyn Ouwehand.

For further information, visit **www.backintimelive.com** or email Chris Abbot (**chris@c64audio.com**). For a taste of what to expect, take a look at Lee Bolton's trailer on this month's coverdisc.

What's happening this month in the retro world

This month...// Intellivision on PS2 // Back in Time Live // Mortal Kombat comeback // Megadrive meets PS2 // Minter's a legend? // Retro mobiles // The retro round-up...

Kombat Shock

Original Mortal Kombat graces new game

Fans of Mortal Kombat will be pleased to hear that limited editions of the latest game in the blood-soaked series will contain a perfect version of the arcade original. Mortal Kombat: Deception Premium Pack (PlayStation 2) and Mortal Kombat: Deception Kollector's Edition (Xbox) will feature all sorts of goodies, including exclusive packaging, a 40-minute DVD on the history of Mortal Kombat and an embossed metal Kollector's Card. But the highlight has to be the addition of the original game.

Deception is due out in October, and as yet the limited editions have only been announced for release in the US. Mortal Kombat fans shouldn't miss Midway's Arcade Treasures 2 either, as it features Mortal Kombat II & III. Also out in October, this collection features over 20 classic arcade games besides Mortal Kombat, including Championship Sprint, NARC, Total Carnage and Gauntlet 2.

PLAYSTATION.2
MAX media player
Transform your PS2 into a powerful media player capable of playing video, audio and even retro games!
datel

To The Max

Play Megadrive games on your PS2

Back in issue five we reported on Action Replay Max, the latest version of Datel's popular cheats disc, which also includes many other features, such as the ability to run Megadrive games on an unmodded PS2. For those of you wanting to emulate the Megadrive, Datel has released Max Media Player, a stripped-down version that includes just the MP3 music player, MPEG/DivX movie player and Megadrive emulator.

We've played around with the product and discovered that the emulator is an updated version of Sjeep's popular PGEN and offers very faithful Megadrive emulation. Setting up the emulator is easy too: you simply use the bundled PC software and burn ROMs to a CD, then use this CD in your PS2. Alternatively, you can copy the ROMs to a USB memory stick, then plug this straight into the PS2. The Max Media Player is available now for £14.99. It can be purchased direct from **www.codejunkies.com** or by calling 08456 010015.

RETRO Auction Watch

Richard Burton once again monitors the wonderful world of online auctions

Available to the retro gaming fraternity this month on eBay UK was perhaps the rarest of all NES cartridges, the super elusive and very exclusive Nintendo World Championship 1990 cartridge in its ultra-rare gold form.

This cartridge was made specifically for a gaming competition that Nintendo ran in 1990. It featured three NES favourites – Super Mario Bros., Rad Racer and Tetris – which had to be played in that order for six minutes. You had to get 50 coins as quickly as possible in Super Mario Bros., then follow that with a spin on Rad Racer, aiming to complete level one in record time. Any remaining time was spent racking up an imposing score on Tetris.

Nintendo scoured the country for the best gamers by setting up regional contests to win places at the World Championship Finals, which were held at Universal Studios in Los Angeles. Overall there were 90 standard grey cartridges handed out to the Championship finalists, and a further 26 gold-coloured cartridges sent out to additional winners through a competition in Nintendo Power, the company's own

monthly magazine. So, altogether a rather miniscule 116 cartridges were produced, making them rarer than a toupee-wearing badger riding a pogo stick down a one-way street. This also means any potential buyer better have a shed load of cash put aside for such a purchase.

Somehow one of these gold cartridges managed to make the transatlantic trip to the UK, and the extremely fortunate seller from Worcestershire coined in a not unpleasing £1,206 for their efforts. With only another 25 of these out there in the gaming wilderness and the majority of those being squirrelled away either in private collections or in the gnarled claw-like hands of their original World Championship-winning owners, it may be some considerable time before another one of these beauties surfaces.

The £50 sale of a collection of eight Thalamus titles for the Commodore 64 should also be mentioned. Thalamus, part of the Newsfield Publications empire, always had a reputation for great games and, as the auction price suggests, still has a tremendous following. It might be a good idea to go and get your Thalamus titles out of the attic and put them towards your pension fund!

The final word goes to a game we featured a couple of months ago, the magnificently expensive Kizuna Encounter for the NeoGeo. Back then it sold for an outlandishly over-the-top price of US$5,500. This month, one sold for a smidge under £200. Where's the catch? Well, the games are identical apart from one very important detail. This Kizuna Encounter started its gaming life as an MVS cartridge, which means it was originally plugged into an arcade machine.

Conversions of these MVS arcade cartridges to the AES home system occur on a regular basis, particularly when rare games can be given a new lease of life from the comfort of your own armchair. Of course, the value is drastically cut, but essentially you have exactly the same game someone else has just paid over £5,000 for. So even at £200, we think this NeoGeo gamester bagged a great deal.

Yak Attack

Jeff Minter nominated for Legend Award

The founder of Llamasoft and creator of such classic games as Attack of the Mutant Camels and Tempest 2000, has been nominated for Develop Magazine's Development Legend Award. Being his usual down-to-earth self, Jeff declared that he was "well chuffed" with the news. He continued: "I've always made games so that I can play them myself; it's always been a bonus that other people have liked them as well, and this nomination's a rather lovely bit of extra recognition. Course, I suppose Peter Molyneux will win it, but it's nice to be thought of."

Mr Minter founded Llamasoft in 1982, creating games for the VIC-20 and then moving on to the C64. His productions are noted for their mix of playability, stunning psychedelic graphics and sound, but most importantly, camels and other such creatures. During the Nineties, Minter joined Atari's development team in California, creating Defender 2000 and the award-winning Tempest 2000 for the Jaguar console. More recently he moved to VM Labs where he made the critically acclaimed Tempest 3000 for the Nuon platform. He is currently working with Lionhead Studios, developing Unity, an intense shoot-em-up. Further information can be found at **www.llamasoft.co.uk**.

RETRO ROUND-UP

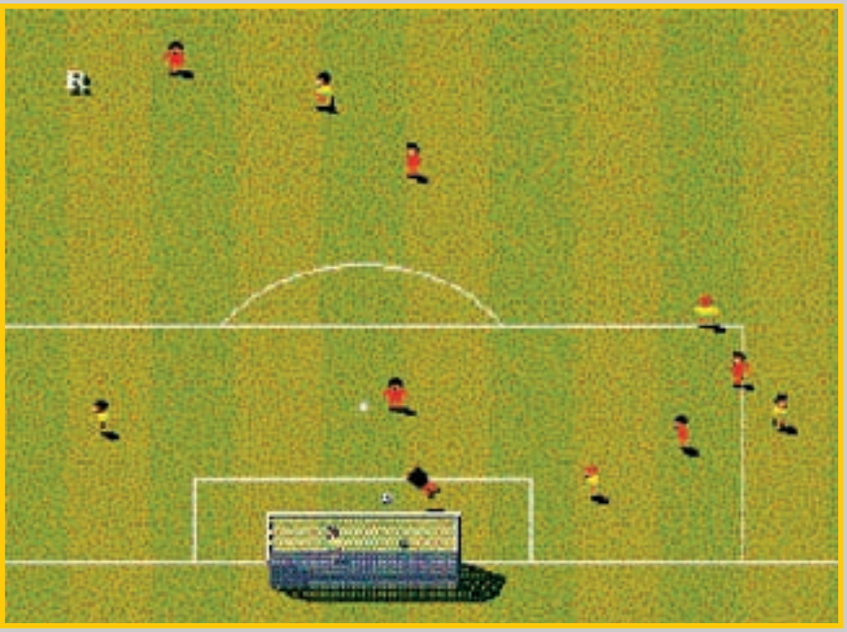
If it's new for old, you'll find it here...

More Tea, Vicar?

Jonathan Cauldwell is back doing what he does best: producing high-quality software for the Sinclair ZX Spectrum. More Tea, Vicar? is an R-Type-esque shoot-em-up that is bound to be another hit. The game contains super smooth horizontal scrolling and an onslaught of invading craft that must be destroyed. As with other games of its type, help is at hand providing you're trigger happy enough to obliterate the waves of enemies and collect the power-ups that boost your ship's performance.

If you simply can't wait for the final release of this impending space epic, Cronosoft has provided an exclusive preview for your emulator that you'll find on the coverdisc.

Also coming soon from Cronosoft is a range of interactive fiction games for your Amstrad CPC. Yarkon Blues I and II, Help, Inc. and Smirking Horror have all been created by Jason Davis and should be hitting the Jiffy bags very soon. For more information, the place to be is **www.cronosoft.co.uk** or you can contact Simon Ullyatt by email at **chaosmongers@yahoo.com**.



Sensi-Soccer On The Go

Sensible Soccer and Cannon Fodder coming to mobile phones

Kuju Wireless Publishing has just signed a deal with Codemasters to resurrect the renowned 16-bit classics Sensible Soccer and Cannon Fodder for Java-enabled mobile phones. Kevin Holloway, Managing Director of Kuju Wireless, commented: "We're very excited to be working on these titles. Sensible Software was highly regarded for creating supremely playable and inventive games. Like great music, great gameplay never goes out of fashion."

Since it was first released in 1992, Sensible Soccer has been updated many times, with later versions adopting an unsuccessful 3D viewpoint. Thankfully, the new Java version will retain the classic 2D, top-down approach, and we gather Cannon Fodder will also remain pretty much the same. Visit **www.kujuwireless.com** for the latest details.

Metal Dust settles

The C64 software label Protovision is busy putting the final touches to the sideways-scrolling shoot-em-up Metal Dust. The game itself is finished and the introduction sequence, instructions and packaging are in their final stages. Protovision will be holding a launch party for the game, which will take place in Germany – the date and venue are to be announced soon. Allan Bairstow at Commodore Scene said: "Very soon we'll be able to supply the UK with the all new SuperCPU game Metal Dust. As well as the game (on disk) and an English manual, it will be supplied in a full-colour box."

Allan continued: "As soon as it's available, Retro Gamer readers will be the first to know prices and availability. As you may guess, this is a title I've personally been waiting for." We share this enthusiasm and have been promised a special advanced copy for review purposes. Keep an eye on **www.protovision-online.de** for the latest news.

Turrican returns

Turrican and its successor, Turrican II – The Final Fight, are well-loved games, especially by the C64 fraternity. The story (or perhaps 'saga' would be a more appropriate word) behind the third game is a long one. Briefly, the guys at Protovision were working on an unofficial sequel, the coding behind which was apparently 'stolen' by AEG of Smash Designs. Time has moved on however, and Malte Mundt of Protovision is happy for the game to be completed: "We wish Smash Designs well with the development of its version of Turrican III, as we too want to see this game completed."

Smash Designs has given us a sneak preview of its version of the game, in the form of a playable demo of the first level and DivX video footage of the third. Both the demo and the video can be found on this month's coverdisc.

The RETRO FORUM

Send us some mail ...>

Trainspotting

Hiya gang. I'm one of many smart arses who will get in touch with regard to the games that should have been in your TV games article. Bug Byte made a game of Automan – whether it was released I can't confirm, but it was certainly advertised and reviewed in Computer and Video Games Magazine ('mutant shirt and tie' was one of its favourite enemies.) A Dempsey and Makepeace game was also featured in one of the Sinclair magazines – it might have been Your Sinclair, but I have a suspicion it was Sinclair User or Sinclair Programs. And what about Minder and Auf Wiedersehen Pet?

Luther Jones, via email

DEMPSEY AND MAKEPEACE

RG: The Dempsey and Makepeace game was previewed in the September 1986 issue of Sinclair User (see left). There was a largish section on other TV tie-ins, including Minder, Auf Wiedersehen Pet, Dallas and EastEnders, but this sadly had to be cut due to space. Perhaps it'll be printed in a special edition of Retro Gamer one day...

Piano lessons

Regarding David Freeman's letter of issue 6, I have a solution to his query. The cable that is puzzling him is called The Miracle Cable. It connects the NES to a piano keyboard manufactured by a company called Mindscape for its Miracle Piano Teaching System, which taught the novice to become a competent piano player through lessons and practice sessions. The keyboard could also be used as a standalone piano/synthesiser. I have one myself and have threatened to re-commence practising at some point in the future, much to my family's horror. Imagine how the late comedian Les Dawson used to play and you will get my meaning. Bye for now.

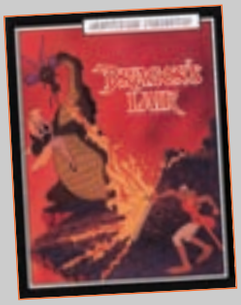
Stuart Hogg, via email

RG: Thanks for that Stuart. David can now plug in the cable without worrying about blowing his house up.

Hardest game ever

Going back through my old Spectrum collection recently has unearthed what I now believe to be the hardest game ever – the Spectrum version of Don Bluth's old arcade game, Dragon's Lair (released by Software Projects). On the arcade version you at least had directional indicators giving you a clue of what to press and when. On the Spectrum, you were left to randomly bash directions and even if you got the right one, Dirk wouldn't react unless your timing was split-second perfect.

Aside from the fact that I'd like to see a feature on Don Bluth's games and the subsequent home versions, I'd also like to see the Spectrum version of Dragon's Lair in the reviews section and find out whether it's possible to complete it –



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even running it through an emulator with snapshots, I can't get past stage five, and it was a hassle getting that far!
ToxieDogg, via email

RG: Another Software Projects game that couldn't be completed? Well, with Jet Set Willy you could at least progress. Have any of our readers finished this piece of 8-bit devilment?

Memories

I'm really happy with the way the mag is at the moment and I dare say that I'm entertained from beginning to end. Rather like when listening an album by Muse.

My main point is that retro gaming and chart music walk hand-in-hand down memory lane together, creating instant intense nostalgia at the flick of a switch. Isn't it funny how music can remind you of days gone by to the point of being able to smelling them? I mean, if you were a typical 12 year old in 1985 you Dad was probably on strike from the NCB and times were hard, yet you still managed to wangle an Amstrad CPC464 out of your parents, delivering all those papers in the rain to pay for games.

I remember playing Head over Heels on the Amstrad (I'm rather pleased with the 2004 remake, by the way), unfortunately with no in-game music, only the constant repeated pitter-patter melody of walking. I seemed to be forever dying at an ultra-hard bit that frustrated me to the point where I was forced to compromise the structural integrity of my Quick-shot II by applying massive pressure to both sides (good job those joysticks where tough cookies). To calm me, I flicked on the radio and Berlin's Take My Breath Away was playing as I continued to die for some time. Now every time I hear that song I'm immediately transported back to my bedroom in the 80s. Bizarre.
Daz Bamf, via email

RG: Well, Daz, I suppose to many the Eighties was a fusion of popular music and games. We personally prefer to remember both as one and the same. For us, the connection between Ray Parker Junior's Ghostbusters and the game are inseparable.

Meeting new people

First off, I wanted to let you know that thanks to Retro Gamer I'm starting to make new friends around the globe, and I couldn't be happier with this. In the old days I was a Lemmings lover and guess what? I am still a fan of the green-haired mindless creatures! What happened to the Lemmings, man? Do you think that it's possible to publish a feature about the game in the future? Regards,
Ivor, via email

RG: Funnily enough, we've been speaking to ex-DMA employee Mike Dailly about a feature on Lemmings and something will hopefully be coming up soon. In the meantime, you can find out lots more about Lemmings on Mike's website at www.mikedailly.com.

When I were a lad...

I thought I'd drop you an email to reinforce what you're probably hearing a lot of – that I find your

* Star letter *

From this issue onwards, we'll be selecting a particularly impressive piece of correspondence and rewarding its sender with a quality retro T-shirt. Our well-dressed friends at Joystick Junkies (**www.joystickjunkies.com**) produce official clothing based on loads of classic videogames, and the winner can select any T-Shirt from the range.

Retro body art

My Lords. In reply to Ryan's letter in issue 6, I am pleased to have an excuse to show off my retrograde tattoo of a Space Invader worth 20 points. I didn't choose this design because I'm a particular fan of Space Invaders, I chose it as a symbol of gaming in general. My gaming time is divided 50/50 between retro and modern games. I am very much of the opinion that a good game is and always will be a good game, although I too share the strange pang of nostalgia that comes with old games. But if we don't play modern games today, we won't have anything to look back on to stir our emotions in 20 years.

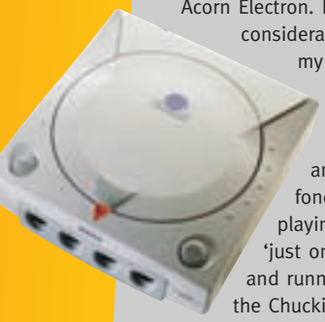
On another subject, I would like to hear about readers' favourite retro games, preferably less obvious ones. For example, everyone knows that Super Mario Bros. 3 is one of the NES's best games, but who out there has played The Lone Ranger to completion lately? It's a simply superb action RPG title once you get into it. I finished it then started it again right away. There must be many other hidden gems out there – I have found quite a few myself – but I would love to read about what others are playing. Keep up the good work.
Andy Pryer, via email

PS. Yes, I also remember the Amiga PD title Drip. I seem to recall it had really cool sampled music.

PPS. Please do yourselves a favour and skip the sycophantic intros to all your letters. Everyone knows what a cool mag it is anyway.

RG: Thanks for bringing your impressive tattoo to our attention. Your obvious dedication to the retro cause is enough to win you our first Star letter prize. We agree that a good game is always a good game, but many nowadays find it difficult to look past the visuals and get down to the all-important gameplay. As for our readers' favourite games, don't miss next issue. We've painstakingly compiled the top 100 reader games based on the surveys you sent back, and there are one or two surprises in there. It's also good to hear that someone else remembers Drip – Shaun was beginning to think that it was all a dream. Finally, how can you ask us to "skip the sycophantic intros" when you start your mail by humbling yourself to us with "My Lords"?

mag a great read and more often than not, I read it cover to cover. Being 28 I find the content interesting as I grew up in the 8-bit era, and it's great to hear about the history of the systems that were around when I were a lad. I especially liked the Acorn feature as I had (and still have, albeit in a box in the loft) an Acorn Electron. I spent a considerable amount of my pocket money purchasing games for it and have many fond memories of playing Hopper 'just one more time' and running around the Chuckie Egg levels like a madman.



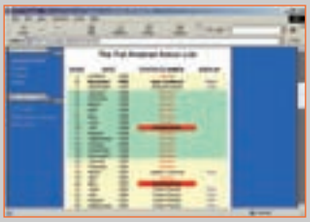
I'm now a Dreamcast gamer and it's the old-style games that I still find the most appealing. Capcom vs. SNK, Guilty Gear X, Gunbird 2 and Ikaruga are all arguably 'retro' games that are tarted up for the newer systems, and as Chris Dempsey mentioned in issue 3's forum, I would love it if you guys paid some attention to these and perhaps ran a feature on the newer breed of retro games running on contemporary consoles, or perhaps an article on the survival of 2D in today's 3D world.

I'm also a Mac user, which brings me to the main reason for contacting you – coverdiscs. The music's been cool and all the games are great – if you've got a PC or a Mac running Virtual PC. Most Mac users (like me) probably haven't, so I'm writing to ask if you could cover Mac emulators and games on one of your coverdiscs at some stage, as I feel we're missing out. All the best and I look forward to my issue popping through the letterbox.
Rob Baines, via email

RG: Probably the biggest draw to Retro Gamer is, as you have pointed out, the nostalgia. Both Martyn and Shaun grew up in the 8-bit era, but were owners of Spectrum and C64 machines, respectively. Coincidentally, Martyn is a big Dreamcast fan too, and believes that the machine will live on thanks to its amazing homebrew scene. Regarding Macs, we trust you appreciated the issue 6 disc, and we're looking into further Mac-based cover-mount material.

A taste of fame

I need help and I've no one else to turn to! Many, many moons ago (when I was a little nipper), I had my first, and indeed only, taste of fame. I had a cheat for Continental Circus published in Amstrad Action in about 1991ish



(Dave Baker from Heywood), but being little and having to share my bedroom with my younger brother the issue was soon lost, never to be seen again. Now this on its own is bad enough, but my wife doesn't believe that I was really in Amstrad Action and since your fine publication came into being, the matter has been raised again.

Does anyone out there know what issue it was in and have a copy of it that they are willing to part with, or any suggestions as to how I can find it again – I have a month's worth of cooking and ironing riding on this. So please, for the sake of your fellow man...
Dave Baker, via email

RG: Well, if Google doesn't provide any answers, you could try John Kavanagh's homepage at http://cpcoxygen.digi-alt.net. John is working on an Amstrad Action archive, which (when finished) will have the information you need. Alternatively, perhaps a reader can make Dave's day.

Japanese Megadrive

First, let me congratulate you on an excellent magazine. There is a lovely enthusiastic vibe that permeates the whole publication and is perfectly in tune with the era when games were primarily fun rather than cool.

Now I need help please. I have recently bought a box of old games stuff for a tenner. Amongst other delectables (a SNES, Krusty's Fun House, Donkey Kong Country, Stunt Race FX, to name but a few) there was a Japanese Megadrive 1. There is no power supply and no A/V cable (although an RF lead sprouts tail-like from its behind). I would like to know how I can connect it to my TV for

A late starter

First off, congratulations on such a fantastic magazine. It always made sense to me that a multi-format mag dedicated to older machines could succeed in the vast market of today. I recall emailing several publishing houses (such as Future) suggesting that very thing, but each time I'd get a reply saying there's no demand for such a publication. Well, you guys proved them wrong and thank heavens you did.

Like a lot of your readers, I grew up with a Commodore 64. Admittedly, I was a late starter, getting my C64 when I hit the grand old age of 10 in the year of Our Lord 1990, but that didn't stop me loving my little grey baby. I've only been able to get Retro Gamer from issue 4 onwards, so forgive me if you've featured or mentioned any of the stuff I'm about to suggest.

As well as covering the machines themselves, what are the chances of seeing a detailed feature on the magazines of the time? Perhaps you could feature the big C64 periodicals one month, then the Spectrum ones the next month, and so on. It might not be looked too highly upon by some of the older readers who were around for Zzap!'s hey-day, but I was a Commodore Format reader. Yours is the first computer mag since the mighty CF's sad demise that has me reading from cover to cover.

If there are any other CF lovers out there who miss Roger Frames and The Mighty Brain, they might be interested in a website I stumbled upon last year called The Commodore Format Library. The guy who runs it is aiming to upload high-resolution scans of every issue of CF. As it stands just now, the site hasn't been updated in a little while and has a few gaps in the collection, but ultimately it's a fantastic resource that I've spent hours poring over. It's also a great source for good-quality scans of old full-page game adverts. Check it out at www.commodoreformat.co.uk.

Also, how about an interview with the Apex Twins? These are the geniuses behind the Creatures games and Mayhem in Monsterland. Speaking of which, it's very interesting re-reading their Diary of a Game features in the CF library, from the making of Mayhem.

One last suggestion – to completely perfect the tone of the magazine, how about you try to track down one of the cartoonists who worked for CF, Zzap!, Crash or any of those other great magazines, and get a grotty little avatar for each of the staff writers over there at Retro Gamer? It'd make me smile anyway.
William Bell, via email

RG: We too are really happy with the success and popularity of Retro Gamer so far, and we seem to be going from strength to strength, which is good. Back in issue 2 there was an extensive feature on Newsfield, who originally published magazines like Crash and Zzap! 64, and we're planning on covering other famous (and not so famous) publications in the future. Regarding the Apex brothers, we've got a lead that we're in the process of chasing up, and hope to profile them and their activities at some point.

the best quality output. The rear of the Megadrive has an 8-pin DIN socket (three pins on each side, one on the bottom, one in the centre, a key slot at the top, and it's somewhat larger than the socket on the back of the UK Megadrive 2) and a nine-way D-type socket. Please can someone tell me the pin-outs for these and what voltage I should be running the beast on? There are a couple of games that came with it that I'd like to play. And yes, I do realise that I'm a jammy bugger getting all that retro gold for £10.
Roland Casewell, via email

RG: None of us here have ever owned a Japanese Megadrive, so we'll have to put this out to our readers. If anyone has the information Roland needs, please email us.

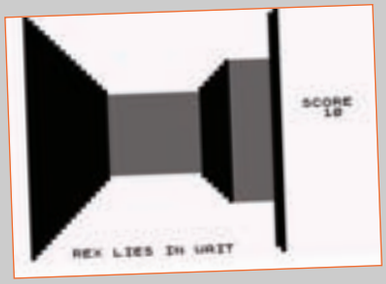
3D evolution

I won't start by saying what a great mag you've created – with so many letters saying it, it must be getting boring!

I was wondering if you'd consider doing a feature on 3D games development, showing how 3D games evolved to become the dominant genre on computers today. You could show 3D games on the early computers (for instance, 3D Monster Maze on the ZX81, Driller on the Spectrum and Star Glider on the ST) and the relative capabilities of each generation of computers. You could also mention the Vector computers and look at how they worked/were programmed. I grew up playing some of these games and I'm sure it would be of great interest to other readers.

Thanks for a great mag (damn!) and keep up the good work. Cheers!
Graham, via email

RG: We're planning on covering the Freescape games and subsequent 3D Construction Kit at



some point, but as for the whole evolution of 3D engines, we'd perhaps consider it if it wasn't just a 'Castle Wolfenstein led to Doom led to Quake' type of article. However, if you look back at issue 2, you'll see that in Shaun's Commodore Uncovered piece, we mentioned what we believe to be the first 3D first-person game for a home platform – Kat and Maze for the Commodore PET, which dates from 1978. Can anyone disprove this theory?

Error in Basic

Hi Martyn. Thanks for the listings feature – I spent an enjoyable hour or so typing it in, just like the old days. It still didn't work, but then I can't actually remember getting one to work. The error is in line 9,240 (assuming it wasn't deliberate to get us all reminiscing). Anyway, I can understand why you don't want to fill the magazine with listings, but how about just one every issue for a different machine each time? That way we can all enjoy the Jupiter Ace again.
Chris, via email

RG: The error that you have pointed out wasn't deliberate, as Shaun fully tested the program beforehand, and although he spent more than an hour typing it in, he can confirm that it was fully working, if a little fruitless. The point you are raising about type-in listings has split our readers into two camps. There might be another article of this nature in the future, but don't hold your breath.

Price tag

Possibly the most contentious subject concerning the magazine is the cover price. At £6, I know a fair few people who simply aren't willing to pay that for a monthly magazine. I still find it silly that these are the same people who'll then blow that £6 on entry to a particularly poor nightclub, but I suppose that's neither here nor there. It seems apparent to me that the reason for the high cover price is the coverdisc.

It's a great idea in theory, but falls down in practice. No disrespect to the authors here, but the remakes just aren't the same as loading up the original game on the real system or via emulation. The emulators given away are a nice idea, but we still require Internet access to get software. And if we have this Net access, can't we get the latest emulators there too?

By far the best disc was the Gremlin collection, containing authentic, commercial games that we all remember playing. The collection of SID music was nice and I do like the idea of putting on software relating to the articles in the mag, such as GameBase 64. However, I don't believe it justifies a CD every month.

Perhaps the CD should switch to being every three issues. That would give you enough time to compile a truly worthy compilation of classic games and the emulators to run them, as well as having the software from previous articles and then the best remakes if necessary. Inside the mag, a section with links to the best emulation resources on the Web would allow people to get what they need. The upshot is that the cover price could then be reduced to a more manageable price, bringing in more readers.

In other areas, Retro Gamer has rekindled my interest in the older games. I'm only 22, but I've been playing the damn things since 1986 on the CPC, and I still look back and miss the way it used to be. It won't come back, so cheers for doing your best to keep it alive for the rest of us. I've already got the Amstrad down from the attic.
Liam McGuigan, via email

RG: Thanks for your comments Liam. They're certainly thought provoking. We're always trying to keep our coverdisc content as fresh as we can, and the amount of pre-planning that goes into the CD is equal to that of the magazine itself. Providing the disc contents tie-in with the features in the magazine, we believe there's room for a coverdisc on every issue. It should also be pointed out that removing the coverdisc wouldn't necessarily allow for a price drop anyway.

Frantic Freddie

I read about the mag on Teletext about a month ago and have been trying to get it here in Ireland since then. I finally found issue 6 two days ago. As a thirty-something male it was a breath of fresh yet old air, if that makes any sense. Anyway, the first thing I read was the letters page, which had a picture of my favourite magazine from the 80s, Zzap! 64. Then I flipped the page to read a review of Frantic Freddie. This was the first game that drew all my family together around my trusty C64. Now we are all grown up, married and living far apart – it really brought a tear to my eye and sent a shiver down my spine. It won't mean much to your readers but it meant a

lot to me, and for that I say thanks.

Mark O'Reilly, via email

RG: Well, what can we say to that? Frantic Freddie is something of an unknown classic for the C64, and there are plenty more games like that out there. It's just a case of tracking them down, which we endeavour to do each month. We dearly hope that each issue will provoke the same feelings of nostalgia.

Suggestions

I have just taken out a subscription to Retro Gamer. I must admit that when I used my Namco joystick it was the first time that I had ever played the original Pac-Man. Years ago, I played the Atari VCS version and now know why people were surprised by how different the game looked on the Atari console.

Anyway, I thought I might offer some suggestions, the first being Mayhem in Monsterland on the Commodore 64. This game was given a 100% score by Commodore Format when the C64 scene was in decline and the number of pages in CF (as well as commercial software for its cover tapes) was dwindling. This may be part of the reason it raved so much about it and gave it such a high score. The mag said it was up there with Super Mario Bros. on the NES and Sonic on the Master System. I was wondering if you could review C64 Mayhem in Monsterland and also show how it stacks up against these two games.

Now on to Stunt Car Racer. I still have fond memories of this game and I have never played a driving game quite like it before or since. The boost function is inspired and gives an adrenalin rush like no other. This gave extra power and acceleration, on tap, as and when the driver wanted it, empowering the driver to blast down a straight or up a take-off ramp with fire spitting from those exhausts! All the time I used it I would be aware that the boost fuel was being guzzled away, but did I care? No driving game (that I am aware of) has ever recreated that system, which seems a bit silly to me.

Anyway, those are my suggestions. Retro Gamer is a great magazine and I am glad I took out the subscription. That's all my rambling for now. All the best,

Mike Page, via email

RG: Mayhem in Monsterland was a peculiar title as it could well be the first 'perfect' game that actually had a bug in the final release. For some reason, if you'd collected all the extra lives on the stage that you were playing, and you then went on to the next level with your lives totalling 10 or more, you'd lost the 10 lives. It was therefore worthwhile making sure you kept the tally down to nine before each new land was loaded, which in turn made the game even more difficult! After spending many, many hours on it, Shaun was still struggling on Cherryland and unfortunately gave up. As for Stunt Car Racer, check out our reviews in this issue...

Game help

I recently bought a Zeon model T-800 (TV Tennis, Hockey and Handball) for £1.25 at a car boot. It is in its original case and works perfectly. However, I cannot for the life of me find out if it is worth anything – have you heard of it?

Will you be doing an article on the Virtual Reality games, such as the Tomytronics, that were introduced in the 80s? I recently bought one in a car boot sale – the memories of the beeps and flashes came flooding back!

One last question before I go: can you tell me who created a game based loosely on Friday 13th (on the Amstrad)? From what I remember you went round a map of a town and every so often, a decapitated head would show up. Needless to say this freaked me out as I was only 10... and no one believed me.

James, via email

RG: Unfortunately, we are unable to find any information on the Zeon machine you mention, so again, perhaps one of the readers will be able to help out. Virtual Reality games is an area we'll consider, but we have no firm plans for anything yet. As for Friday the 13th, Domark published an official licensed game in 1986, and it was very poor indeed. It didn't feature a decapitated head though, so we're guessing the game you played was an unofficial tie-in of some sort.

Compunet

Being a thirty-something, I've been interested in retro gaming for some time, so it's good to have a magazine dedicated to it. I'm amazed at the current trend for collecting and playing 'old' games. I was even more surprised to find that a couple of months ago, my local Blockbuster video store had been redesigned to include a large gaming and retro gaming section, complete with a window display of old and new consoles and games, handhelds (including a Gamegear and Game and Watch) and such like. For me personally, the appeal of retro gaming is the simplicity and sheer playability of games such as Space Invaders (still my favourite) and Lunar Lander, and Atari 2600 games like Yar's Revenge and the classic Adventure.

I think it's also the fact that they remind me of the many hours (and pounds) spent in Blackpool arcades during annual holidays. It's amazing to look back and remember how little power the games systems had in those days, particularly since I now have a mobile phone that can run the original arcade ROMs I used to love so much!

Anyway, the purpose of the mail was to ask if you have any plans to do a feature on early (pre-Internet) online systems. In my teens I had a Commodore 64 and modem, and was a subscriber to Compunet (CNET). It was great. There were early versions of the chat rooms we have today (but much less dangerous, I think), electronic mail, and tons of downloads. I remember downloading the 10-minute Trap demo, which was basically a glorified ad for the online service, but the music was fantastic. Another great feature was MUD, which, as I recall, started as a free service but eventually became subscription based. I got into a lot of trouble using CNET, not only because of the inflated telephone bills, but also for tying the telephone line up for hours on end. It would be grand to see a feature on this, and other services available around the same time.

As well as being a CNET subscriber, a friend of mine was also a Prestel subscriber. I remember this service being very colourful, but it didn't have the thousands of great Commodore downloads that CNET had.

Lee S (CNET ID – LJS1), via email

RG: Firstly, we'd be interested in a picture of your local Blockbuster's retro gaming area. If you get the chance, could you take a digital camera along some time? As for the Compunet, well, there is definitely a feature in there somewhere, especially considering the amount of programmers that used such services. Although many were demo coders, a lot of commercial code was exchanged via the service that we pretty much take for granted today. On a side note, Shaun has successfully networked up a Commodore 128 (in C64 mode) to the office network using the Retro Replay cartridge and Ethernet adaptor, along with the operating system Contiki. He even managed to play online hangman, all of which was 'strangely impressive' to the PC and Linux guys in the office.

eMag

RETRO REVIEWS

From old games on new platforms to new games on old platforms. As long as it's retro, you'll find it in our regular reviews section

Do you disagree with our Hall of Fame or Hall of Shame reviews? Or can you think of any other really great or damned awful games that we should take a look at? Email reviews@retro gamer.net with your suggestions and we'll take it from there...

RetroSphere

Programmers:	Rupert Hawkes
	Patrick Brett
Price:	Free (demo version)
	US$15 (full version)
Format:	PC

RetroSphere is a glorious remake of the classic Trailblazer, originally released by Gremlin Graphics in 1986. The object of the game sounds simple: navigate your spherical object towards the finish line in the fastest time possible. However, as with every game, complications await you, and in this case the oncoming course will either help or hinder your progression. The track has marked squares that have various effects on your ball as you roll over them, such as ramps for jumping objects, speed ups, slow downs and other much more psychedelic actions, like screen rotations and the 'Qoob' effect.

This remake is a little kinder to the player from the outset than Trailblazer, and although the visuals are busy and play is frantic, the earlier levels serve to ease you into the game. RetroSphere also gives you the opportunity to create your own courses, so that you can learn exactly what each block does or design your own mega-difficult track to humiliate your opponent by knowing all of its secrets. Visually, this remake has brought the original game into the late Nineties, and although a better standard could have been achieved with the technology (well, depending on your graphics card), it is nice to see that things have been kept fairly simple. It is also nice to see that, in a sea of big-budget, online multiplayer licensed games, there still resonates something of the spirit of the bedroom programmer, creating fairly original and very playable games for your enjoyment.

We have provided a demo version of the game on this month's coverdisc. If you're tempted to buy the full version, head over to **www.boiledsweets.com**, where you'll find full ordering information.

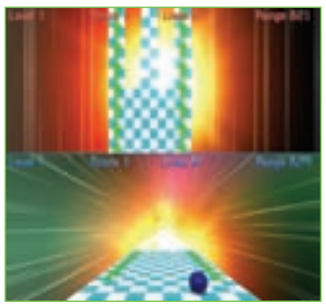
Shaun Bebbington

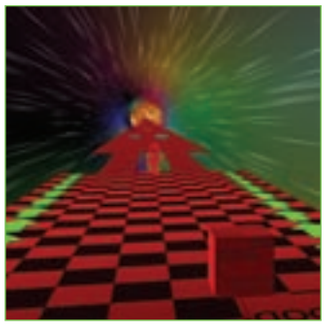
Graphics 69%
Not mind-blowing, but still very pretty. Super-impressive visuals would not improve the game anyway.

Sound 65%
A cheesy-rock soundtrack with some nice sound effects. The appeal of the in-game music will come down to taste, and it isn't to mine.

Playability 85%
The simplest concepts are the best, but RetroSphere has added a little extra to the play with the screen rotations and other such effects.

Addictiveness 85%
You'll soon find yourself hooked, especially if you're a fan of Trailblazer.





Overall 76%
RetroSphere will make a nice addition to your remake collection. What's more, you can try before you buy.

1945 I & II

Developer:	**Takara Co., Ltd**
Price:	**£9.99**
Format:	**PlayStation 2**

Play It's latest PS2 release features two classic arcade shoot-em-ups from Psyiko – Strikers 1945 and Strikers 1945 II. As the title suggests, the games fit the mould of Capcom's 1942, but in shoot-em-up terms they are anything but old skool. The Strikers series takes the 2D shooter beyond anything you've seen before, with literally hundreds of bullet-spewing enemies swarming all over the screen. Thankfully, your souped-up WWII fighter is armed with a ridiculous amount of firepower. And of course, the more power-ups you collect, the more powerful your plane becomes. They're weapons of mass destruction all right.

The two games are virtually identical. There are eight levels in each, and in time-honoured tradition you must battle with a bloated, over-sized boss before you can move onto the next mission. There are several different fighter planes to choose from too, and each one has its own special mode of attack (these are much more over the top in the sequel).

Perhaps the only problem with the game is that there's almost *too much* going on, especially during two-player games. There are times when you almost feel removed from the chaos on screen. It's also slightly disappointing that you're given an unlimited number of credits. This cheapens the game in a way, because you can just keep on going until you complete the game.

Still, we can only praise Play It for bringing titles like this to the PS2. And the best bit is, 1945 I & II retails for £9.99. What's more, it will be worth a good deal more than that in a few years time, so you can't really go wrong.

Martyn Carroll

Graphics	**78%**
Arcade perfect, although the games do seem to be direct ports of the PSone versions.	
Sound	**82%**
There's in-game music, but it's drowned out by a pleasing chorus of blazing guns and whirring propellers.	
Playability	**89%**
Perfect for a quick blast. The gameplay is timeless, although the screen can get overcrowded at times.	
Addictiveness	**92%**
A definite 'one more go' quality. You'll want to see those end-of-level bosses crash and burn.	
Overall	**86%**
Fast and frenzied fun that doesn't let up for a second. Two mindless blasters for one bargain price.	

EggHead in Space

Programmer:	**Christopher Dewhurst**
Price:	**£2.99 (tape and disk)**
Format:	**BBC Micro and Acorn Electron**

Think of egg-shaped characters in computer games and you'll instantly conjure up images of a red boxing glove-wearing, puzzle-solving hero named Dizzy. EggHead obviously bears more than a passing resemblance to Dizzy, but is in no-way related – honest.

In the story, EggHead finds out that pesky aliens have abducted his favourite games and are taking them to the planet Zog. Just in time, our hero boards their ship to retrieve his much-loved software. Unfortunately, the ship blasts off back to Zog and on arrival EggHead accidentally teleports himself to an underground labyrinth. All this for a few games he could have found on eBay or at the local car boot sale...

The game opens with a short rendition of The Great Escape and EggHead's starting position is next to the teleporter. Don't be too hasty to use it though, as it's worth taking the time to explore the adjacent rooms first. You will soon find items to collect and these affect the play. Your first task is to find the water pistol. From there, the game opens up further with new problems to solve and items to collect.

This port is an almost pixel-perfect conversion from the Spectrum original, and a great game in its own right. It has the right mix of classic platform action and puzzle-solving elements that you'll find compulsive and fun. The controls are well thought out, considering it's a left, right and jump affair, and this is handy because some screens require pixel-perfect movements.

EggHead in Space is great value for money, as you are not only getting a high-quality game, but are encouraging further developments for the BBC Micro and Acorn Electron. Head over to **www.cronosoft.co.uk** where you'll find all of the information you need to make this very worthy purchase.

Shaun Bebbington

Graphics	**83%**
The graphics are fluid, well animated and faithful to the Spectrum version, although slightly less colourful.	
Sound	**65%**
Sparse but well-thought out sound effects, plus a short and snappy opening tune.	
Playability	**88%**
The controls are fast and responsive, and some screens offer a significant challenge.	
Addictiveness	**83%**
A highly compelling game that will keep you coming back until you've completed it.	
Overall	**80%**
This is a great port of the original Spectrum version and worthy of its price tag.	

Stunt Car Racer

HALL OF FAME

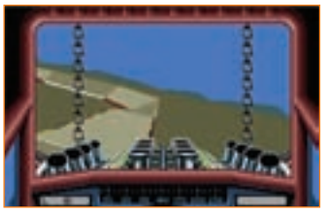
Programmer:	Geoff Crammond
Price:	£24.99
Format:	Atari ST

I've spent more hours on this game than any other racing game ever, and every time I revisit it, I find it as fresh, playable and fun as the first time it drew me in. Stunt Car Racer came from the mind and talents of just one guy. I am of course talking about Geoff 'Revs' Crammond, and as with his other games, the attention to detail in this virtual world is immense. Even better is the fact that every port is as good as the last, and the Atari ST version is no exception.

Stunt Car Racer was released in 1989, and in it Geoff imaginatively looked to what might be in car racing's future, predicting new technology and a glorious and daring event for the sport. Ultra-sticky tires, aerodynamic one-man racing pods and super-fast nitro-driven V8 engines allow for a much more dangerous and wild version of F1 or Stock Car Racing – rollercoaster-type tracks are driven at stupid speeds and heights that could make you sick. The stunt car-racing concept was born.

As for how it plays, well, everything's here. The game has a seemingly simple control method and fast filled 3D vectors, and although it's let down a little by the sound, each track has its own attributes with a progressive and well-thought out design and learning curve. The Atari ST version lets you to compete against a friend using a now-primitive peer to peer-type protocol, or you can race against the computer in a league situation. You can also practice any of the eight tracks, which makes it almost compulsive to try each course at full speed whilst trying to avoid wrecking your car, or just destroying it for fun. This game is simply leagues ahead of the competition – it has more depth than Sega's Power Drift and is better in almost every way than Atari's Hard Drivin' (well, the home ports at least). I can fully recommend scouring eBay to find this gem. I'm off to give the Draw Bridge another blast...

Shaun Bebbington



Graphics 92%
Fast, smooth and excellently rendered vectors are the order of the day. They're nicely presented throughout and compliment the play.

Sound 75%
Simple but effective engine drones and sound effects accompany the play.

Playability 95%
An instantly recognisable concept that will quickly have you hooked. Great to play against a mate too.

Addictiveness 96%
Completely compelling. Once you've given it a few tries, you'll be hooked.

Overall 90%
A British classic that has endured thanks to a simple control method mixed with some superb, full-throttle gameplay.

Rampage

HALL OF SHAME

Developer:	Activision
Original price:	£9.95 tape or £12.95 disk
Machine:	Atari 8-bit

Rampage's storyline involves three unsuspecting fast-food junkies who are accidentally fed experimental and genetically modified food additives. This transforms them into huge human-eating, building-destroying, armed force-defying mutant monsters. Obviously, with their newfound talents, the three victims – George, Lizzy and Ralph – go out on a city-destroying spree the like of which hasn't been seen since the mighty King Kong scaled the Empire State Building. What a great concept for a game, taking out all that pent-up aggression on a binary world. Surely it can't fail?

Well, it did, despite being billed as, "The arcade smash for your home computer." Let's get this right from the start: there aren't any decent ports of this game, at least not to my mind. And although it was good (at the time) to see Activision supporting the Atari 8-bit with this release, it probably shouldn't have bothered. Surely someone knew that this game was, at best, poor. The main sprites are ugly, monochrome, and ill defined, featuring some shoddy and occasionally amusing animation. Take a look at how George scales and destroys the buildings, for instance.

This would have been OK, I guess, if Rampage featured anything like decent gameplay. But no. Sadly, the characters are unresponsive and sluggish, and the controls are awkward, meaning it's a nightmare to play. To add insult to injury, on loading the game you are greeted by possibly the most rubbish music ever. In fact, I find it difficult to class this arrangement of tones as music. I also find it difficult to understand why you can destroy fully armoured tanks with just one hit, and yet the trams/buses that pass are indestructible. This game is simply a joke and should be avoided at all costs.

Shaun Bebbington

Graphics 13%
Poorly animated, ugly and nothing near the machine's capabilities.

Sound 12%
I'm sure the sound effects are perfectly reasonable, but this is completely let down by the collection of dire tones that greet you.

Playability 10%
Sluggish, unresponsive sprites. It wasn't even fun when you were a kid.

Addictiveness 9%
Like a fisherman with no tackle – it just doesn't hook you.

Overall 11%
I really love the concept of Rampage. It's just a shame that it couldn't be delivered on the Atari 8-bit.

Classic Gaming Expo UK
The weekend of July 24th-25th witnessed the UK's first multi-format retro event. As sponsors, Retro Gamer was lapping up the atmosphere and enjoying every retro-filled minute of it. Over the next few pages, you can read all about our experiences at the event, along with post-show comments from the organisers Chris Millard and his wife Christine. We also round-up the best anecdotes from guest of honour, Mr Matthew Smith

Curtain raiser

The first CGE UK was officially opened by Andrew Oliver, co-creator of the Dizzy series. Here's what he had to say...

"I actually feel honoured to be asked to open this, because there were loads of people who used to write old Spectrum games. I have to say that me and my brother actually made quite a few, and spent many sleepless nights working on those games. There's been no rift between us; we still work together and write games for the PlayStation 2. We're just looking forward to the PlayStation Portable and Xbox 2. Games have changed a little bit I can tell you. It's great to have this event and to remember that this is where it started with these games. Enjoy the show!"

Andrew Oliver kicked off the proceedings on the Saturday morning

Thursday

It all really started for us on the Thursday before the show. Like clockwork, we were making our final preparations, loading up the van with the arcade cabinets, magazines and Shaun's old junk in anticipation of the big event. Martyn was his usual casual self, drinking coffee and planning the next issue, while Shaun was frantically trying his best to plan for every technical problem that he could think of. Extra extension cables, soldering irons, tools and all kinds of seemingly un-necessary items were gathered, but there was more to 'dig out' of his garage, which meant the prospect of an early start on Friday morning.

Friday

As expected, Friday morning started early. Shaun got stuck (literally) into his garage, searching out the final items that he thought he might need for the weekend. The task then was to laden Martyn's car with Shaun's rubbish, and set off, albeit later than expected (partly due to Shaun yet again leaving something behind).

Other than traffic, the journey was mostly uneventful. We arrived at the Fairfield Halls around 7pm, unloaded the car and as swiftly as we could and had a quick browse around. Shaun had the privilege of meeting Spectrum programmer Jonathan Cauldwell, and also managed to secure a demo of More Tea, Vicar? for this month's coverdisc. Martyn, on the other hand, went over to meet organiser Chris Milliard and star guest Matthew Smith. We then decided food and drink were required, so we left the hall and booked into the hotel.

Saturday

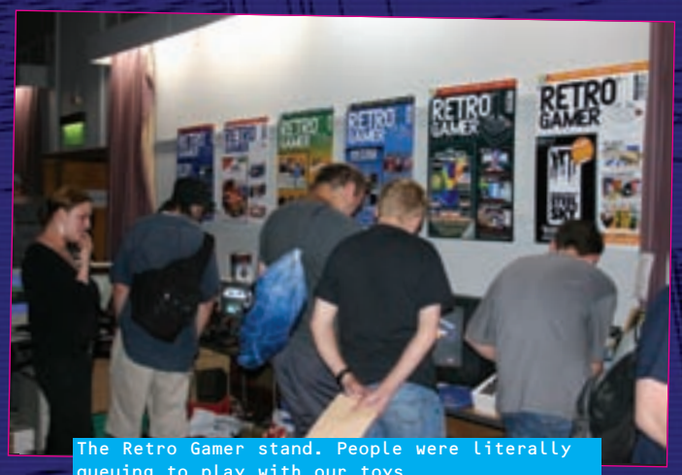
Saturday morning was another early start. Shaun arrived ridiculously early only to find the hall virtually empty. As the morning progressed, more and more exhibitors turned up, and eventually Martyn arrived, looking fresh and ready for action in his brand new Retro Gamer T-shirt. (They really are fine items of clothing, and yours for a more than reasonable £14.95 each.)

The various computers and consoles we bought with us were set up promptly, while outside many enthusiasts eagerly gathered, awaiting the 10am opening time. Following the opening of the doors, Andrew Oliver (of Dizzy fame) got the show underway. A steady flow of people entered the hall, and the vast majority found time to come over and talk to us – we thank you for all for your kind comments and suggestions during the weekend. The computers, consoles and TV games we had on display drew interest, but the most popular items were without doubt our arcade machines. Kindly provided by Jonathan Thompson of Retro Arcade (www.retroarcade.co.uk), the machines were in constant use throughout the day. Understandably, the cocktail cabinet that we're giving away as a competition prize proved very popular.

On to the aforementioned Matthew Smith – what a guy! He really made the weekend and despite being almost mobbed, he found time to talk with everyone, sign copies of his games and answer questions – he simply took it all in his stride. Nothing seemed to be too much trouble

Clockwise from top left: Console Passion, Retrogamer, Cronosoft and Retroid Prime, C64audio.com

Loaded up and ready to go. Hopefully the Space Invaders machine will survive the journey



The Retro Gamer stand. People were literally queuing to play with our toys

for him, and he found time to visit every stall, even stopping by to see our Mega-tree slideshow, which provoked a smile followed by, "Cool". Later on, Martyn vacated the stand and went to sit-in on Matt's afternoon Q&A session. He was funny, honest, revealing – it was brilliant stuff, especially for his many admiring fans.

Shaun meanwhile, wanting to find familiar and new faces, spent intermittent spurts wandering around the hall and the upper-tier. "Retro Gamer magazine? Sounds familiar", a voice said, and Shaun was promptly handed a copy of Retrogamer fanzine, a long-established enthusiast-based publication from the skilled hands of Keith Ainsworth (http://retrogamer.merseyworld.com/). Shaun then purchased the first two issues, and after a quick chat with Keith, moved on. Opposite Keith's stand was the Console Passion stall (www.consolepassion.co.uk). If there was a gap in your console collection then this was the place to fill it! They had literally 100s of games for sale, including some very hard to find titles.

Simon Ullyatt, the man behind the retro-publishers Cronosoft (www.cronosoft.co.uk), had set up with Retroid Prime (www.retroidprime.co.uk), and seemed to be doing well as copious amounts of their stock was exchanging hands. Unfortunately though, many of the tapes themselves had a duplication problem, so Simon could only take orders. This bug didn't seem to affect Spectrum 16Kb files, but it meant that Fun Park and ZBlast SD+ were the only titles on sale on the day. Better luck next year Simon. Speaking of needing better luck, Shaun had lent out many pieces of hardware for use at the Protovision stand (www.protovision-online.de), which suffered numerous technical problems throughout the weekend. This seemed to be down to heat in the hall.

Shaun then moved onto the Binary Dinosaurs display (www.binarydinosaurs.co.uk) and was amazed to see a fully working Commodore 65. He just had to have a go on this, and after enquiring about the specifications of this rarity, he found the game Stella 7 from his collection and had it up and running, for a while at least. It looked like the 75-80% compatibility may well be true.

Saturday was about the busiest day and it ended too quickly. After some food, we visited a few of the local bars before returning to the hotel for some much needed sleep.

Sunday

This was another early start, and while it was rightly assumed that it would be a little quieter than Saturday, there were still plenty of people milling around. Frank Gasking, the guy behind the Games That Weren't website (http://homepage.ntlworld.com/frank.gasking), stopped by our stand, as did writers Andrew Fisher and Paul Drury, both part of our ever-growing freelance team.

Shaun once again went around the stands to meet the exhibitors. He found the Retro Beep stand (www.retrobeep.com), the people behind which run the hands-on museum at Bletchley Park. Needless to say that after this particular chat, Shaun is planning to visit with a view to a feature in a future issue.

Shaun then attended Matthew Smith's final Q&A session for the weekend, and dared to draw Matt into the Spectrum versus Commodore debate. Matt admitted that he was in the Speccy camp, then went on say that he thought that the Atari 800 was a superior machine to the C64, to Shaun's utter dismay. Following the Q&A, Shaun collared Matt to the bar. Conversation then turned to Matt's 'meetings' with the guys from Crash magazine, which, as he pointed out, was more a chance to drain Newsfield's expenses than to actually talk about anything significant.

Matt later returned to the hall to give out the raffle prizes (delivering priceless comments on each prize before announcing the winner). By this time, the event was drawing to a close and the exhibitors had started to load up and say their goodbyes. We lumbered the arcade machines back into the van, refilled Martyn's car with Shaun's rubbish and made our way back up North. It is just left for us to thank Chris and Christine Millard for organising such a successful show at the first attempt, and here's hope that it will get better and better, year on year. Once again, Retro Gamer will be sponsoring next year's show, so we'll see you then.

The guys from Protovision enjoying Bomb Mania, their four-player Bomberman clone for the C64

There were a number of classic arcade machines upstairs, thanks to Andys Arcade

Interview

After allowing them to recover for a couple of days, we spoke to organisers Chris Millard and his wife Christine to find out how they thought the whole thing went

We asked Chris and Christine Milliard to reflect on the first CGE UK

RETRO GAMER: Everyone we've spoken to agrees that the show was a great success. Do you feel that all the hard work you put in paid off?

CHRIS MILLARD: Absolutely. We had no pre-conceptions about the success of the event, but it gave me a great buzz to see all of the exhibitors and visitors over the course of the weekend. It was also a great thrill to be able to say, "We did that!"

CHRISTINE MILLARD: Definitely worth the hard work. I'm not too sure that it was worth the grey hair and sleepless nights though (just kidding).

RG: No complaints from visitors or exhibitors then?

MR M: Well, I took a couple – mainly due to the lack of the MAME workshops. It's quite funny, but Matthew Smith's half-hour Q&A session overshot to two and a half hours, and everything from there on in went crazy! We apologise to all who came for the MAME events, and we are working hard at getting some extra cool MAME stuff on our website...

MRS M: Not really. This was the first event of its kind (and scale) in the UK, and everyone involved (exhibitors, visitors and us) came up with loads of suggestions and bigger ideas. If you thought this year's show was cool, just wait til next year – it's going to be a blast!

RG: Were there any last-minute disasters you had to deal with?

MR M: Well, the BBC had a last-minute sporting event taking place at the venue, and that caused us major hassle since we couldn't get some exhibitors set up until the Saturday morning.

MRS M: Quite a few of our exhibitors overcame lots of obstacles to attend the event, and we'd like to say a big thank you to all of them. From bee stings and ill health, through to transport problems and equipment failure, all of them made a huge effort to take part in the event and make it such a success.

RG: For us, and many other attendees, the highlight of the show was surely Mr Matthew Smith, who seemed to be having the time of his life. How did you manage to lure Matt?

MR M: It took me over 11 months to track Matt down. It was a hard task. However, he said yes immediately! He took no persuading – he was well up for it. For the people who met him over the weekend, I think they saw the enthusiasm he had for it all.

MRS M: That was purely down to Chris' dogged determination. I know Chris has been a big fan of Matthew Smith and his games since he was a kid, and like lots of Matt Smith fans, wondered where he was and what he was up to now. Luckily, Matthew Smith is such a nice guy and was really up for the whole adventure!

RG: We gather you had Matt around for dinner after the show. Did he reveal any extra secrets about his gaming past?

MR M: Yes – but it would be inappropriate to go into detail. We talked until nearly 3am about his gaming past and his non-gaming interests. What I can say is that we enjoyed a really great curry (I'm going to plug the Mohini Balti House in Beddington – it's fantastic!) and some great conversation. I really feel that I made a new friend in Matt. Oh and by the way, there's 'maybe' more levels to Jet Set Willy, but you didn't get that from me OK?

Matthew Smith, seen here signing a copy of Retro Gamer issue 1

CGE staff member Russell takes the Sinclair C5 for a spin

MRS M: I wasn't privy to any gaming secrets – but I know what Matt thinks of Chris' DVD collection (good job we hid the Doris Day flicks before he arrived).

RG: Originally you were to display your collection at the show. What happened there?

MR M: Well, by the time the event was drawing near, it became very apparent that I would not have the time to be able to 'man' my own exhibition, as my time would be spent ensuring that everything else over the course of the weekend ran as smoothly as possible. Still, the majority of exhibitors had the same machines as me, so I would only have perhaps a dozen machines to show that weren't seen elsewhere.

MRS M: We both agreed, that our priority should be ensuring that the exhibitors and visitors to the event had the best time, and all our time and energy was taken up with that. Perhaps at a future event Chris will get the chance to dust off his rarest items and put them on show – I certainly hope so.

RG: You've already confirmed the dates and a couple of special guests for next year's show. What else can you tell us?

MR M: Well, the dates have been confirmed as 30th and 31st July 2005, and our special guests (so far) are Matthew Smith (for those sceptics who didn't believe he would be here this year!), Archer Maclean and Jeff Minter.

MRS M: We have loads of ideas buzzing around, and potential things in the pipeline.
We are definitely planning loads of competitions for next year's event, hopefully with some really cool prizes. When Matt came to dinner, he said he fancied running some sort of coding competition for the event. I don't know if it will go ahead, but it would be great if it did. We are planning to have a larger variety of arcade machines, emulation cabinets and pinball machines, and work is already under way to get these in place for next year.

RG: What are your long-term hopes for the CGE UK?

MR M: We want CGE UK to grow to the size of the NEC. As every year goes by, another console falls into the 'retro' classification, so our show can only grow. We also want to get people more involved in the 'old skool' ways of programming – ie one or two people sitting in a bedroom creating the next Manic Miner or something like that. There's a lot to be said for homebrew (the games, not the lager) and CGE UK would be a fantastic launch pad for releasing 'new' 8-bit and 16-bit titles.

Chris and Matthew during the raffle. I wonder who won that fine Retro Gamer T-shirt?

MRS M: Everyone had such a good time at the show, I'd just be happy for that to continue. It would be great to keep adding to the show and make it bigger and better, so I guess that is our main goal.

RG: If interest continues to grow, would you ever consider running the show more than once a year?

MR M: Possibly. We have already asked the last lot of exhibitors whether they feel we should be six or twelve monthly. Most have said six monthly. While we are not set against it, we don't want to run before we can walk, so there will only be one show next year. However, if the visitors and exhibitors show enough enthusiasm to warrant it, we may look at a summer and a winter show. Please feel free to email us with your thoughts on this...

MRS M: I think it would be great to hold the show more than once, perhaps the same event but held in two different parts of the UK. It would be cool to allow more people to visit without all the travelling hassle. I was amazed that people came from Edinburgh, Cardiff and even Portugal, Austria and Poland. At the moment though, we'd just like to make sure that the one event we do hold is absolutely the best it can possibly be.

RG: Finally, what's your personal highlight from the show?

MR M: The obvious ones are meeting Matthew Smith and Andrew Oliver, having played their games when I was a teenager.

MRS M: There were loads of highlights, but for me, it has to be seeing the buzz and excitement of everyone. Andrew Oliver emailed us to tell us what a great time he had. The exhibitors, visitors and venue were all asking us about the next one before we'd even closed up on Sunday! I also thought the C5 rides were so cool – it was a giggle seeing Chris, Andrew Oliver, Matt Smith, the CGE UK staff and all the visitors riding round in them.

You could say that Matt enjoyed himself at the show

The wisdom of Matthew Smith

Anyone who believed the rumours that Manic Miner author Matthew Smith was dead would have been taken aback to see him at the show, larger than life itself. With a distinct rock star swagger, Matt mingled with the crowds and delighted everyone with anecdotes about his previously clouded past. Having spoken to him and attended both his Saturday and Sunday Q&A sessions, we present Mr Smith's best bits...

Matthew Smith, looking relaxed before his final Q&A session of the weekend

His life

On starting out...
It started like most of us, with a computer I got as a Christmas present, to help with the homework. I was one of those pestering kids who'd seen Space Invaders in the arcade, and what we didn't tell our parents was that we really wanted a Space Invaders machine in our bedrooms. And the only way to do it was to learn to write a game. Quite a lot of us met up in various computer shops – Tandy were renowned for being generous with their space and time – and we started writing games just for our own amusement really. Fortunately at the time, the publishers were just starting to look for software.

On his first industry job...
Bug-Byte was looking for Spectrum software. I was recommended as someone who could write a game, although I had never seen a Spectrum. That's not too bizarre, because I knew the chip inside the Spectrum inside out already. So I just borrowed a Spectrum and three weeks later delivered a simple little game called Styx.

On leaving Bug-Byte...
I took Manic Miner off Bug-Byte because the company wasn't paying me quick enough. It was actually three months late paying me, and to a 17-year-old that seemed outrageous [*smiles*]. I've since left my own landlord without rent for longer than that. So I not only set up my own publishing house, but I also took their best-selling product off them. So I set up Software Projects, and shortly after that I met Stu (Fotheringham). My main motive for starting Software Projects was financial control. I already had total artistic control as far as I needed it.

On life at Software Projects...
At Software Projects, the lunatics did take over the asylum. Most of us were very young and a bit wild, and we didn't have the self-discipline. And my partners, who were attempting to manage everything, they didn't have what it took. But it was a fun time, and we did produce the games, and we were selling them, and we were doing the business. And the industry grew.

On Manic Miner royalties...
I did have a large mountain of money from Bug-Byte for Manic Miner. But by the time I finally got it to cough it up, I was already owed another £30,000. So when the £30,000 landed in my sweaty hands as a 17-year-old – who was just beginning to discover women and drink and motorbikes and all that stuff – I spent it. I'm sure some of the people I used to drink with respect me very greatly for the amount of alcohol I could consume in a night. And of course I wouldn't do it again. If you're listening kids, keep it safe. Just say, "No thank you" – there's no harm in being polite.

On Jet Set Willy royalties...
I never ever received a penny in royalties from Jet Set Willy and haven't to this day, in any form. That's largely due to being the director of the publishing company, and ploughing it all back in, until it was all ploughed in and ploughed away. Jet Set Willy sold way over half a million copies, and that was just on the Spectrum and Commodore 64 in Europe. And there were plenty of copies sold in Japan on Japanese consoles, so it might have been a million seller. It might still be if the GBA version comes out. And if I do receive some money for the GBA version, that will be the first time I have ever received any royalties for Jet Set Willy.

On dropping out of the scene...
Fame is a very funny thing. There are two versions of the scene. There's the scene that the media perceives, and there's the scene, which is the alliance of all the people, meeting in their own time, drinking in the same places, generally hanging out together and feeding off each other. It's very hard to stay in touch with people when you can't afford a bus fare and you can't afford a telephone... It was never actually a conscious decision to drop out of the scene, more a force of circumstances I'm afraid. You don't become a

hermit. It's just that one day the invitations stop arriving, the money runs out...

On leaving the country...
I went over to Holland – it was all part of a united Europe. So when the rules changed, I could go and seek employment somewhere where there was a half a chance of getting a job, and that certainly wasn't anywhere near Liverpool in the early Nineties. So, I got on my bike basically.

On rumours about his disappearance...
I didn't realise there was any big mystery. I thought people had just generally forgotten me. I'd had my 15 minutes in the spotlight and that was over and it was gone. But as soon as I got the Internet, I typed my name into Google to see what would happen and started to find out strange stuff, about where people though I was. It was slightly shocking.

His games

On creating Manic Miner...
I went on holiday to Italy for two weeks and I bought a notebook in which I drew some of the levels. I came back from that holiday, got to my computer and literally eight weeks later we were duplicating cassettes. That shows the benefits of a good holiday, I suppose. But eight weeks after Manic Miner Bug-Byte was asking me why I hadn't written another one! The company was very, very upset that eight or nine months went into Jet Set Willy.

On the success of Manic Miner...
I wasn't surprised by the success of Manic Miner at the time. I thought that it was going to be a blockbuster – it was obvious. I thought so, the publishers thought so, everyone who saw it thought so at the time. So I accepted the success as my due reward at the time. But there was nothing revolutionary about what I did. I took some ideas from Donkey Kong, some ideas from Miner 2049'er, and I cooked them up as a nice treat for Spectrum owners. But there were better Spectrum games after that, like, erm... [*shrugs his shoulders and smiles*].

On the cheat code in Manic Miner...
It's actually a corruption of my driver's licence number. It's not accurate, which is fortunate because there's a security risk there I'd rather not incur.

On naming Miner Willy...
Yes, there is a joke in there somewhere. Willy is a funnier name than, erm... George.

On the ZX81 version of Manic Miner...
I saw one screen. It was very well done, something the VIC-20 couldn't manage. Actually, Perils of Willy on the VIC-20 started out as an attempt to port Manic Miner. The guy who said he could do it gave up after two months, but presented what he had managed to do, which we released as Perils of Willy.

On the Oric-1 version of Manic Miner...
I think that we sold 10 copies.

On the inspiration for Maria in Jet Set Willy...
There was a lady who lived over the road from me. She was Greek – hair up in a bun – and looked like the keeper of her own house. Maria was just a generic name for a servant. There's probably a bit of racism there – a servant with a Mediterranean name.

On the first person to complete Jet Set Willy...
A guy called Cameron Else disassembled the Spectrum version, found the bug, fixed it, and we gave him a prize. And he then did the MSX version of Jet Set Willy.

On the bug in the Banyan Tree...
There's no bug in the Banyan Tree. It was exceptionally hard, but I proved for my own satisfaction before the game was released that you could get from the right-hand side to the left-hand side. But there was no formal testing on Jet Set Willy whatsoever. A lot of the problems were fixed in Jet Set Willy 2 by Derrick Rowson, a very talented guy who's been in the industry longer than I have.

On Mega-tree...
We were set up in a house – a very smelly house. Basically we were disrupting the company, so

The character of Maria was based on a Greek lady who used to live opposite Matthew

Derrick Rowson's sequel fixed a number of bugs found in Matthew's original

"Don't listen to people who say you can't write a game by yourself these days. But then, don't underestimate how much work you have to do. Believe in yourself."

we secluded ourselves in a small house so we could get a game done without bringing the publishing empire crashing down around our ears. You can actually see the core idea of the game in a later game called Nebulus. It was a platformer with some extra ideas. We should get Mark (Wilding), because Stuart's concepts in Retro Gamer magazine ring bells, but it isn't quite exactly what I thought we were trying to do. We should get together and find out what we would have ended up with if the plug hadn't been pulled. One question I had to ask myself was how come I'm a director of the company and I'm letting my own projects get cancelled? I used to get very angry about that, but life goes on. I would like to finish Mega-tree one day, but I'd like to do that with Stuart and Mark, if we could get together. It wouldn't be right for one of us to finish it.

On Attack of the Mutant Zombie Flesh Eating Chickens from Mars...

Mutant Chickens started off as a game based on the Wile E. Coyote franchise. We were all assured we had it in the bag, paid for, done and dusted. I spent ages getting "That's all folks" displayed on the Spectrum! But then we found out we hadn't got the licence, so most of our preliminary work was down the drain. As the Spectrum market was declining at this time, and my personal resources were also declining. I had nowhere to live but the Software Projects' factory, and I had no money except what I could literally crowbar out of the petty cash tin. I was having my telephone sabotaged – very strange. Anyway, Mutant Chickens had some nice effects, with some really huge sprites overlapping each other without any colour clash. But it never got finished. There may possibly be something left of it somewhere, but I've had to move with the world in a suitcase on several occasions, and most of it has probably been binned now to be honest.

On life after the Spectrum...

When the Spectrum market had dried up, I switched to the Atari ST as my development machine. I was going to write games just for the ST, but the market was running out there too, so I gave it up. I was making a football game just called Footie but I never got anything to market.

On GameBoy Scrabble...

The last thing I did professionally was Scrabble on the Color GameBoy, published by Ubisoft. I did 90% of that myself; it was a normal one-man effort. But on the cartridge there's credits for 59 people and one dog. That adds to the perception that it takes 60 people to create a GameBoy game. Actually, I've only got credit as Additional Programmer, but 90% of the code was written by me.

On unfinished games...

I'm still missing some of my early stuff, but I'm not really looking that hard because I'm trying to look forward.

On current projects...

I've recently been chugging away, working on my own engine and my own tools. Whenever I've got enough saved to pay my rent for six months, I just bury myself and say that I can produce a game in six months. But any project that you estimate will take six months will actually take five years. I'm looking to do work on the Xbox. My 3D engine has got a few nice features. I have got a few things going on, but I'm not mentally geared up to selling my ideas to a publisher anymore, although that's what I did with Manic Miner originally. The best way to approach a publisher is to have something visible, so they can see where it's going. When it's half finished maybe, and I'm not that far off with one particular project.

On programming a new Spectrum game...

I'd like to, but I haven't got any immediate plans and it would have to fit in. And I'm not tooled up to be honest – I haven't got a good Z80 assembler installed and I don't actually have a Spectrum at the moment. But it would take me about eight weeks to do it.

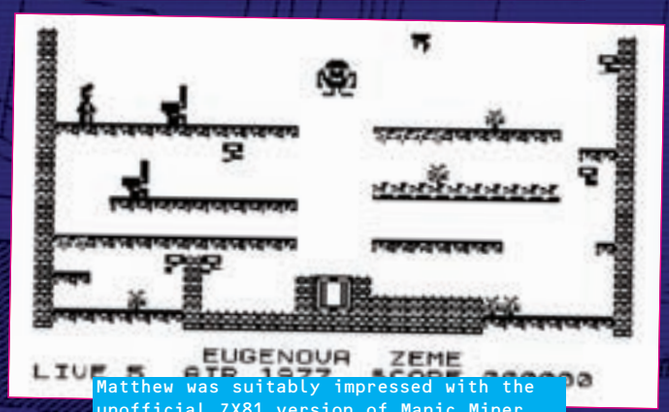
The industry

On publishers and programmers...

When I started, the developer used to be very much in control of the games that were written. And many people say this

Manic Miner appeared on both the Bug-Byte and Software Projects labels

The game was never finished, but adverts for Mutant Chickens appeared in the games press and cassette inlays were even printed



Matthew was suitably impressed with the unofficial ZX81 version of Manic Miner

"For a young boy, at the age I was, Manic Miner made me very rich. But I was not as rich as I thought I was, and that turned out to be a significant problem."

Bill Hogue's Miner 2049'er was an obvious inspiration for Manic Miner

Matthew's most recently published title was Scrabble for the GameBoy Color

contributes to what was seen as the golden age of gaming. The games were written by artists, by programmers with ideas, and then offered to publishers. And if one publisher didn't like it, there was always another publisher. But we were still dependant on the publishers to pay us our royalties, and that was often a question of trust. We had contracts, but by modern standards, they were flimsy legal documents. And it wasn't always the publishers deliberately trying to screw the programmers; sometimes the programmers were demanding contracts that left the publishers with very little rights to publish.

On bedroom coders...
I'm not entirely sure of the commonly perceived wisdom that games cost millions of pounds to develop. This perception is based on the fact that most games do actually cost millions of pounds to develop [*smiles*]. But I think in some ways there's no reason why you can't write a game in the bedroom by yourself. Maybe not by yourself anymore, but small teams of bedroom coders can still write games. Let's remember that Peter Jackson's best film, I'm sure everyone would agree, is Bad Taste. That cost 10,000 New Zealand dollars, and there I rest my case on that subject.

Other stuff

On Manic Miner/Jet Set Willy remakes...
I personally don't have a problem with it at all. But there are legal complications with the copyright law as it stands, where you are either forced to protect something fully or abandon it. So if I start actively encouraging modding then it is in a sense giving up any rights I have to it. But with the case of Jet Set Willy it's very complicated, and nobody should be worried if they're making mods. I wish them luck basically.

On Bill Hogue...
Miner 2049'er was one of my favourite games, and quite of lot of that ended up in Manic Miner. But Bill Hogue has probably never heard of me because he's American. I also wrote a version of Galaxians for the TRS-80. It was probably not a good as Bill Hogue's version. He was the daddy on the TRS-80.

On playing games...
I try not to play games these days. There were times when I was struggling to keep a roof over my head, so when I've got a computer, and electricity, and an Internet connection altogether, I try to spend all the time I can working on my back catalogue of unfinished titles. But if I had to have a choice of playing new games or old games, I'd choose new games. It's the wrong place to admit that, but everything moves on.

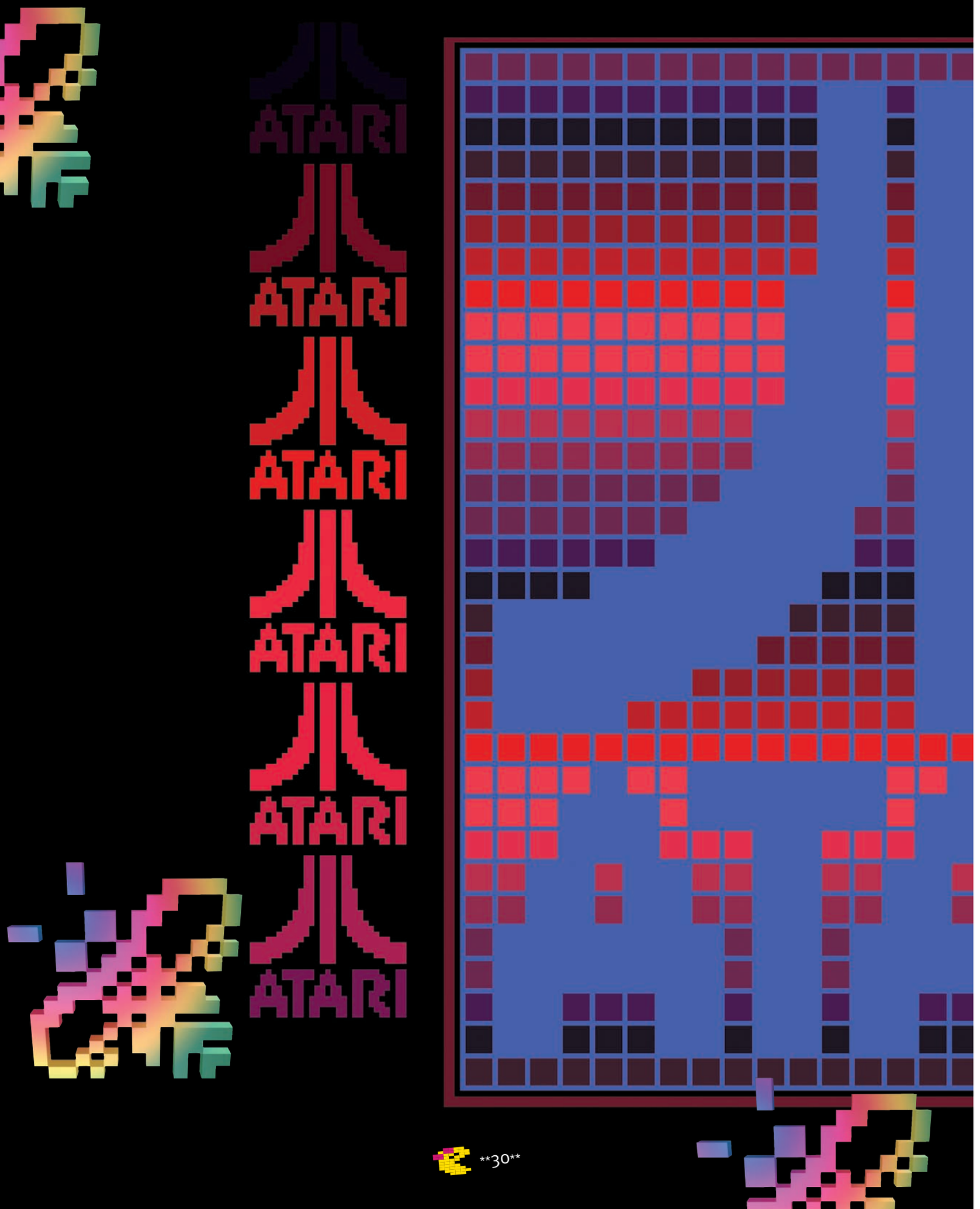
On the game he wishes he'd written...
I'm not a great fan of violent shooting games. I like playing them, but I wouldn't like to publish them. Nonetheless, I'd still like to have written Doom.

On Spectrum vs Commodore 64...
I'm in the Speccy camp, although I was jealous of the C64 because I couldn't afford one until it was time for me to work on it. I did get an Atari 800, so for me it was always Atari versus Commodore. The Atari was better – much better. Much nicer, much more polite users, better software, but it was £100 more expensive that the C64, so it was always going to be the fifth or sixth choice after the other available machines in this country.

On Pepsi Cola...
Pepsi – the drink of the successful [*holds up can and grins*].

On the Classic Gaming Expo...
I don't come to events like this very often, but that's because there aren't many of them. It's very nostalgic. It's great to see all the people and all the old games. I'll be back next year for sure.

Extra special thanks to Robert Hazelby (www.jabba.demon.co.uk/retroranch) and Simon Ullyatt (www.cronosoft.co.uk)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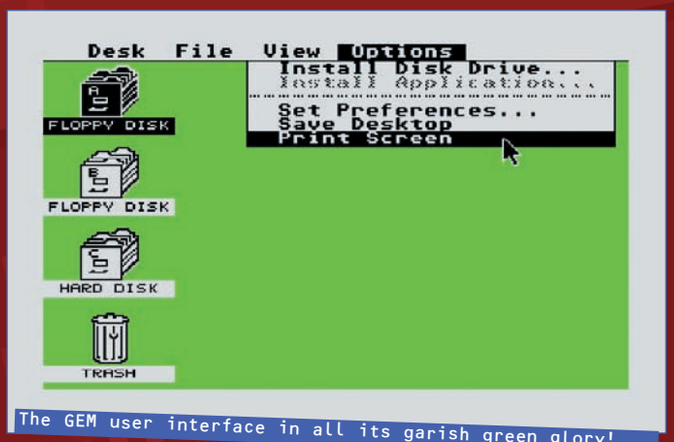
>The Atari ST Family

By the mid 1980s, Atari had been through both the financial highs and lows of success. It had almost single-handedly invented the console-gaming generation and entered the home-computer arena with much enthusiasm, posting record sales in excess of US$2 billion in 1982. But only one year later the true impact of Commodore's VIC-20 and C64 machines started to be felt. They were better priced and better supported, forcing Atari to its lowest-ever point. Something had to change and that something came in the formidable shape of Jack Tramiel, his sons and the creation of the Atari ST. Richard Davey takes up the story

From left to right: Garry, Sam, Jack and Leonard Tramiel



The GEM user interface in all its garish green glory!

Much of Commodore's success could be attributed not only to quality hardware, but also to the business acumen of then Commodore president, Jack 'business is war' Tramiel. Commodore was riding one of the biggest waves it had ever been on until Friday the 13th 1983, when Jack left Commodore for Atari. Some reports cite the main reason as being Commodore's Chairman Irving Gould's disapproval of the way Jack placed his sons in key positions within the company. Others say Jack was up for a new challenge and the chance to make some serious money from then Atari owners Time Warner. Whatever the truth, this shift in position had a monumental change on both Commodore and Atari.

Amiga built the ST?

Prior to Jack Tramiel taking over Atari, a company called Amiga Inc. had been contracted to work on some new custom chips for what was planned to be the Atari 1850XL, a superior expansion of its 8-bit XL range (see Retro Gamer issue 6). Amiga became increasingly unhappy with the way in which Atari handled the affair and promptly refunded the development money it had been paid (US$500,000). Ultimately Amiga took the new chip designs to Commodore who handed over the princely sum of US$20 million for them. Those designs eventually worked their way into the Commodore Amiga.

It was imperative that Atari was not left behind and work began on a Motorola 68000-based computer. As the Tramiel's settled into their new roles at Atari, various key Commodore technical staff were also poached, building up a formidable engineering team. With a newly invigorated Atari, an engineering team mostly poached from Commodore and new funding in place, the company managed to design and build the Atari ST in just over one year, which was a remarkably short period of time for such a groundbreaking machine. This almost certainly wouldn't have been possible were it not for all of the engineering development work that had previously gone on whilst at Commodore, as well as Amiga's work on the 1850XL. However, other key choices were made to speed up production, including the use of off-the-shelf components.

Shown to the general public at the American CES show in October 1985, the first Atari ST release was a relatively primitive affair sporting both an external disk drive and power supply; even the operating system had to be loaded from disk. The 'ST' in the title stood for Sixteen Thirty-two, representing the processor's bus architecture – 16-bit external, 32-bit internal addressing, which was a significant leap in performance for the time. The machine shown at the CES was the Atari 130ST, sporting only 128KB of memory. However, to call it a 'machine' is being kind, as the model on display was little more than an epoxy mock-up with working keyboard; even the motherboard didn't fit properly into the case. But the seed had been sown and the signs that something new was on the horizon were evident.

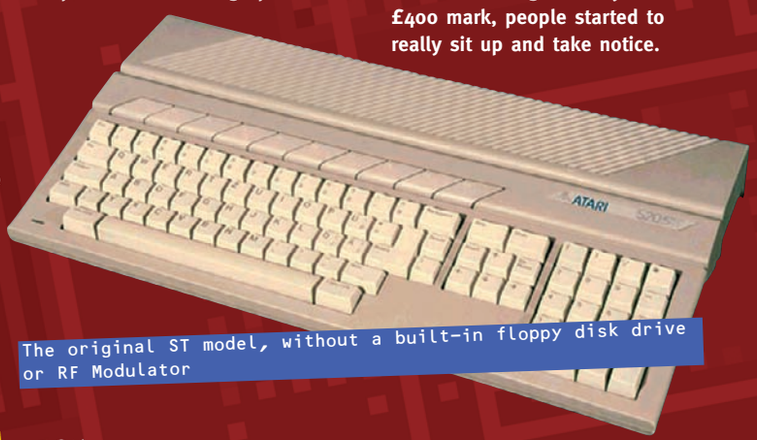
Public interest ran high and five months later the ST appeared in the UK at the PCW show, this time in working form. One year later and those lucky few that could afford it were able to purchase a complete system, but at a base price of £799 it didn't open too many gamers' wallets at first, despite being a massive £1,600 cheaper than its nearest rival. The 520ST released at this time still had the external RF Modulator and floppy drive, and the mouse and joystick actually plugged into the right-hand side of the machine where the newer revisions would see the floppy drive eventually housed.

The Operating System

Although expensive at launch, the Atari ST was still significantly cheaper than other business machines of the time, such as the Apple Macintosh and the PC. Also, like these early contemporaries, the ST loaded its operating system from disk. The operating system Atari used was a combination of several readily available systems. Much of the low-level code came from an earlier system called CP/M. Sitting on top of this was the graphical element, the GEM (Graphic Environment Manager) – this user interface was developed by Digital Research as an alternative to the Mac OS. Combined, these elements were known (perhaps somewhat unfortunately) as TOS – The Operating System. Version 1.0 was loaded from floppy disk, although this wasn't the case for long, with a second revision placing the OS onto a ROM chip. A ROM-based OS is always present in the machine; turn it on and it will function, even after something like a hard drive crash (unlike a PC or Mac). On the downside, a ROM-based OS is much harder to upgrade. Atari allowed for this to a degree by making TOS check for a bootable floppy disk during startup. Games took advantage of this to bypass the loading of the OS, thus saving some precious memory. It also meant that replacement OSes could be released, and many were during the life of the ST.

Power without the Price

It didn't take long for Atari to refine the production process and reduce the general cost of the machine significantly. At the £400 mark, people started to really sit up and take notice.



The original ST model, without a built-in floppy disk drive or RF Modulator

The difference in power between the new 16-bit leader of the pack and the 8-bits was instantly noticeable. Game screenshots were now in vibrant colour with significantly higher resolutions, and publishers could actually start using screenshots from the games themselves, rather than the arcade machines they may have been based on. This, backed up by Tramiel's constant and aggressive marketing campaign forced the Atari ST into a dominant role, making it the best-selling gaming machine in Europe at its peak.

The inclusion of MIDI ports on the ST as standard paved the way for it to move into the music industry like no other computer had done before it. Probably the vast majority who owned an ST never actually used the MIDI ports at all, especially the average games player. But for those who did, it opened up a whole new world of sound. MIDI is an acronym for Musical Instrument Digital Interface, and it basically allows you to connect musical instruments to your ST and then control them digitally. Using sequencing software you could literally play into your ST, edit what you had played via the software and then have it played back to you again.

This is Retro *Gamer* magazine after all, so we won't delve too deeply into the intricacies of Expanders and Multi-timbral instruments, but suffice to say that no other home computer offered this kind of power, and it lead to the ST being the premiere choice for musicians.

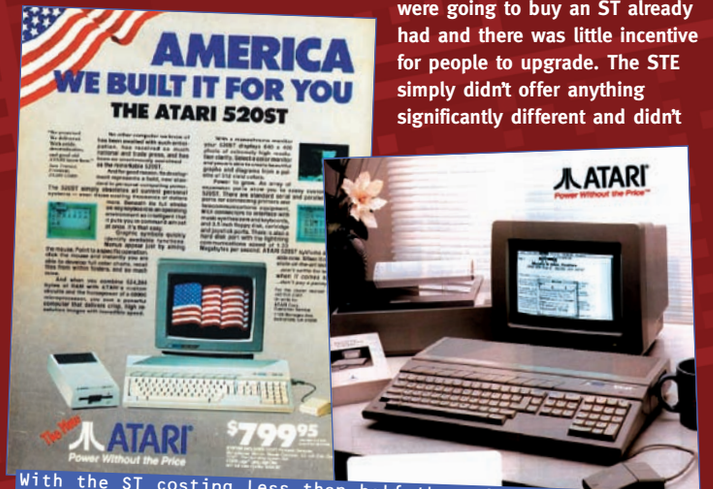
Norman Cook is just one artist who creates beautiful noise with his ST

Software such as C-Lab's Notator and Steinberg's Cubase pushed the ST out of the gamer's bedroom and into the forefront of music studios across the world. At one point, over 85% of all UK music studios were running from ST hardware setups, including the likes of Madonna who's production crew would actually carry the ST ACY (a portable Atari ST machine akin to today's laptop) around on stage to sequence her act live. Even today the ST is still regarded as one of the best low-budget choices for those wanting to break into the industry. Open up the cover of Fat Boy Slim's You've Come a Long Way Baby and you'll be faced with an ST sitting smugly in the studio. The fact that it's still used today is a true testament to the impact on the music industry the machine had and still has.

Life after the ST

The Atari STE was released to a relatively lukewarm reception in 1989. By then most people who were going to buy an ST already had and there was little incentive for people to upgrade. The STE simply didn't offer anything significantly different and didn't carry any of those 'wow factor' games. Those who did own an STE had a far superior, but under-exploited, piece of hardware. Commodore was fighting aggressively at this time and Amiga's developer was managing to push its machine to new limits, making it a true rival to the consoles of the era, whereas the ST seemed to be the one now suffering from poor game conversions.

Atari did try to strike back one final time, with the Atari Falcon 030. This computer was everything the STE should have been – a Motorola 68030 processor, additional advanced DSP processor, DMA sound, a Blitter chip, built-in SCSI ports, an Internal IDE port, a 1.4MB floppy drive, a VGA monitor support as standard, up to 14MB of memory and the most advanced version of TOS yet, a true multitasking environment. Despite being a great machine and the one that's still in use by most true Atarians today, it didn't sell in significant enough numbers, thanks to a very high



With the ST costing less than half the price of its nearest rival, Atari's boast of 'Power without the Price' was perfectly true

Custom chips

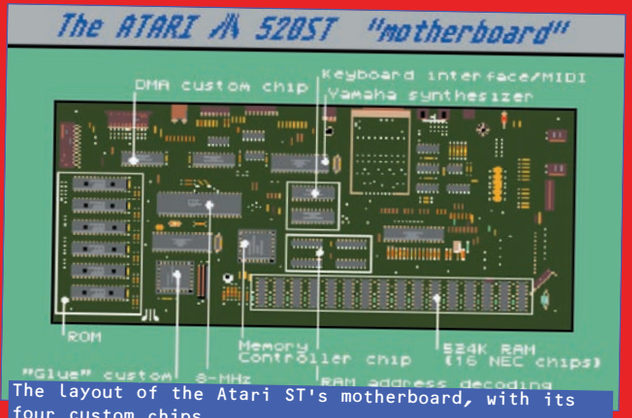
All of the ST range shared the same principal hardware. However, it was the top-selling 520 STFM that most people were likely to have owned or witnessed in action. It's time to get a little technical in order to understand how the ST worked on the inside. The ST featured four custom chips designed by Atari that performed essential tasks.

Glue: The first chip and the most important, this basically kept the entire system in check and running smoothly. It generated the master clock signal of 8MHz, handled all requests for access to memory and I/O, and created the empty video signals that were later filled in to produce the image on the TV or monitor.

MMU – Memory Management Unit: Another custom Atari chip. It had two main functions: to keep track of up to 4MB of memory and to control it. When another chip (such as the processor, DMA or Shifter) wanted to read or write to a location in memory, the MMU made sure the correct address in RAM was available.

DMA – Direct Memory Access: This custom chip allowed incoming data from floppy drives or hard disks to be placed straight into memory without going via the processor. It also prevented memory conflicts.

Shifter: The final custom chip was responsible for creating the multicoloured displays you saw on screen. The MMU supplied the Shifter with the bytes of screen data and palettes, and the Shifter turned them into RGB video signals. For Monochrome monitors the Shifter was actually muted.



The layout of the Atari ST's motherboard, with its four custom chips

>Grand designs

The ST range underwent a number of design modifications during its first few years, with several variations emerging including the 520 STFM, 1040 STFM, three varieties of Mega ST machines, and, in 1989, the Atari STE. You can easily determine some of the features by the machine name alone.

‹520, 1040› This number referred to the amount of base memory installed inside the ST – 520 being 512KB and the 1040 being 1MB. The STE was the easiest machine to add extra memory to (standard SIMMs), but you could upgrade any ST, hence making the number element somewhat redundant.

‹ST› Some thought this stood for Sam Tramiel, one of the Atari marketing team. It actually means Sixteen Thirty-two, referring instead to the processor and data bus capacities.

‹F› The F meant that the model included a floppy drive. These were typically 720KB units that took double-sided, double-density (DSDD) disks, but earlier models also shipped with single-sided drives. This meant that the majority of Atari ST games released until around 1988 came on several disks in order to allow single-sided owners to play them.

‹M› The M stood for Modulator, which was the built-in RF Modulator that allowed you to plug your ST into a normal television set. At the time, the Atari-dedicated monitors cost a lot of money and the majority of owners plugged into a colour TV set, because then you could both play games and switch over to catch an episode of Knightmare!

‹E› The E in the STE stood for Enhanced. The STE bought the ST range in-line with the capabilities of the Amiga with an advanced Blitter chip, DMA sound and more. Sadly it was too little, too late. In the initial advertising for the STE, it was actually labelled as the STEFM (with the FM in subscript). Thankfully, this never actually made it onto the case badge design.

The Falcon was Atari's most powerful computer to date, but its high price put off many potential buyers

base price, the emergence of the PC and a lack of decent marketing. The Atari Falcon is still keenly used and supported today however, but that's another story and one still in the making.

>ST software

The ST had a great selection of games software, some of it incredibly innovative for the time. Here we take a look at seven timeless titles

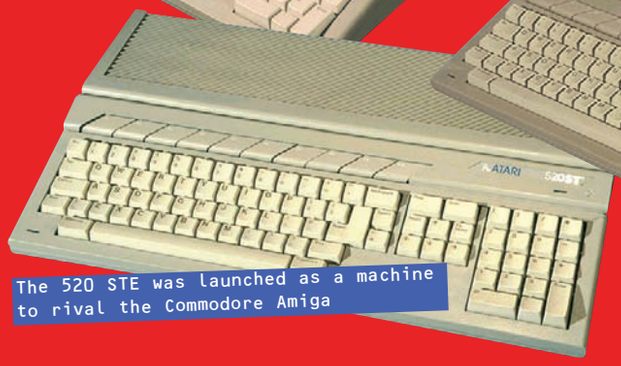
Starglider

Argonaut Software and RealTime Software, 1986

At the September 1985 PCW show where the ST was first unveiled in the UK, on one of Atari's many huge stands was an ST running a vector-based 3D graphics program. These visuals were destined to become a game known as Starglider, which was released by Rainbird a year later. The game was set on the planet Novenia, the home of the legendary Starglider bird. The planet's other inhabitants built giant sentinels to protect

The 520 STFM – the model most of you will be familiar with

Those with a little more disposable income could splash out on a model with double the memory



The 520 STE was launched as a machine to rival the Commodore Amiga

The Mega STE, with its built-in hard disk drive

themselves from attack from other worlds. These sentinels were programmed to destroy anything that looked like it might pose a threat to Novenia, but to protect the famous birds they were programmed to ignore them as they returned from their long migration. The evil Ergons, seeing this weakness, built giant attack craft that closely resembled the birds and wreaked havoc. As one of the last few survivors it was your job to right this wrongdoing.

Starglider came with a 64-page novella that went into far more detail than you'd expect and contained plenty of hints and clues for those studious enough to read it all. Starglider also featured (for the time) a long, digitised musical introduction that took up 170KB of memory, the female voice used in it belonging to one of the Computer &Video Games Magazine staff writers at the time. The hidden-line 3D vector graphics were breathtaking and paved the way for intelligent shooters, also sealing fledgling developer Argonaut's place in the gaming history books.

Dungeon Master

FTL Games, 1987

This classic role-playing game and forerunner of every 3D RPG since was first released on the Atari ST back in 1987. Developed by FTL (Faster Than Light) Games, the games division of Software Heaven, it was originally published by Mirrorsoft (and later by Psygnosis), and was ported to just about every other system. It was also the winner of many awards including the Best Selling ST title 1988, Computer Player's Game of the Year 1988 and UK Industry Adventure Game of the Year 1988.

The original development team consisted of only five people: Doug Bell, Dennis Walker, Mike Newton, Andy Jaros and Wayne Holder. FTL released a small number of other quality Atari ST games including Sundog Frozen Legacy and Oids, but none ever matched the run away success of Dungeon Master, which is alleged to be the single largest selling ST game of all time (although other sources say Populous is).

Midi Maze

Xanth FX/Hybrid Arts, Inc., 1987

Picture this if you will – up to 16 players, all on their own computers, networked together, zooming around a 3D maze shooting each other until the one with the most frags wins. If that doesn't sound like the real ancestor of the modern first-person shooter, we don't know what does. Midi Maze and its sequel were developed by German programmer Markus Fritze and allowed you to connect up STs via their MIDI ports to enjoy some serious multiplayer mayhem, well before the likes of Doom. The problem, of course, was actually getting 16 STs into a room in the first place, considering each ST needed its own monitor/TV, and that the typical length of a MIDI cable was only 2 metres – you needed a BIG room. Nonetheless, it was a groundbreaking title at the time and is still supported with new maps even today. It made an

>Machine specs

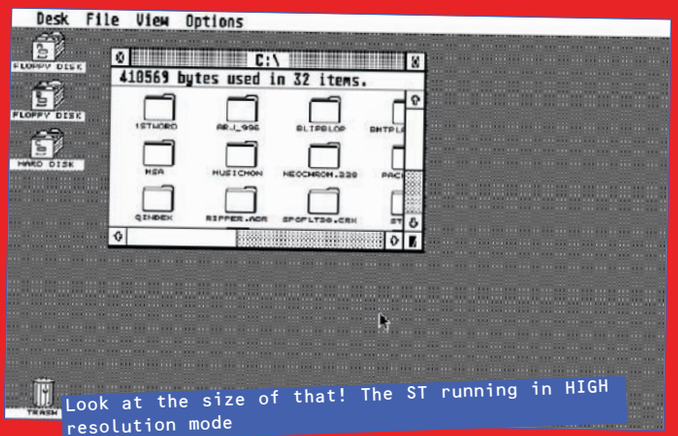
Processor: The Motorola 68000 processor (aka Mc68000 or 68k) was the first of the 32-bit processor family. It appeared in the Apple Mac and Sinclair QL prior to the ST and Amiga. The 68000 could run at a variety of speeds from around 4MHz up to approx. 12MHz. Atari picked the middle frequency of 8MHz for maximum reliability. Fact fans might like to note that this is actually a higher/faster frequency than the Commodore Amiga, which ran at 7.2 MHz.

The popular Motorola 68000 processor powered the ST line

Memory: The 520 and 1040 machines were both based on the same main circuit board, and used the same kind of RAM chips, known as 256KB DRAMs. The operating system was held on ROM, which was an additional 192KB chip. On the left of the ST was a cartridge port, probably made most famous by Cubase for its protection dongle or some of the disk-hacking devices available at the time (Blitz Copier, Multiface, etc).

Storage: Sony was the first company to produce the 3.5in disk system and manufactured the first drive that appeared in any quantity. It was designed as an extension of the 5.25in drive in widespread use at the time, and is actually completely compatible with it – meaning you can also use 5.25in drives with an Atari ST. A port on the back of the ST allowed for a second drive to be connected, which was deemed essential for disk traders of the time. A hard drive could also be connected to the DMA port on the back of an ST.

Graphics: Connected to a TV, the Atari ST would, by default, boot in what is known as ST LOW resolution. This resolution was 320x200 pixels and offers 16 colours on screen from a palette of 512 on the STFM. On the STE the palette increased to 4,096. This is the resolution in which nearly all games ran. However, it didn't take long for developers to figure out how to 'remove the borders', thus increasing the potential area available to write graphical data onto. At first only ST demos removed borders, but this technique soon found its way into games, giving the player the



Look at the size of that! The ST running in HIGH resolution mode

appearance of a much fuller and larger screen. The two other ST resolutions were ST MEDIUM (640x200 pixels in four colours), ideal for reading text files or documents, and ST HIGH (640x400, 2 colours), which could only be truly obtained via the use of a dedicated mono or multi-sync monitor. This extremely high resolution for the time was a hit in the MIDI and DTP worlds.

Sound: The Yamaha YM2149 chip was present in all of the ST range and produced what most people today refer to as 'chip music'. It has three programmable tone generators, a noise generator and a mixer with 15 volume levels. Even at the launch of the ST this was regarded as a rather poor choice of chip for an otherwise powerful machine. Nonetheless, some truly great musicians pushed it to its limits and beyond, introducing fantastically good tunes and innovations such as digi-drums, SID sound and eventually Soundtracker replaying. The Atari STE, while still featuring the YM chip, also introduced a DMA Sound Engine with five sound channels, capable of 8-bit digital stereo at up to 50KHz.

Connections: The ST had standard parallel and RS-232-C ports on the back, meaning you could plug devices such as modems and printers in directly. The ST also had two MIDI ports on the side, which was used by most people to connect to MIDI devices, but they could also be used to network STs together for multiplayer gaming.

The ST's all-important MIDI ports, tucked away on the side of the machine

extremely rare appearance on the Virtual GameBoy under the title Faceball 2000 by Bullet-Proof Software, but this is the true original.

Xenon

The Bitmap Brothers, 1988

Xenon was one of those classic arcade shoot-em-ups that truly showed 8-bit owners what the new 16-bit machines were capable of. Gameplay consisted of vertically scrolling shooting; you could waggle the joystick to turn your ship into a land-based craft and back again, which added a new depth to the game. It was known for having superb

graphics, probably equalled only by its difficulty.

The Bitmap Brothers were Steve Kelly, Eric Matthews and Mike Montgomery, and Xenon was their first joint venture into games development. The game marked a new turning point, with the developers becoming as 'cool' as their product – you could open any magazine of the time and see the Bitmaps strutting their leather-jacketed stuff in Vogue style poses, rather than the shirt-and-tie nerd image developers previously held. This image was all carefully planned, according to an interview in ST Format magazine (Issue 18, January 1991) in order to break the mould, and it worked. Xenon was ported to most other game systems of the time and was followed by Xenon 2 Megablast, although the sequel wasn't developed by the Bitmap Brothers – it was actually created by The Assembly Line on their behalf, while they were busy on RPG action game Cadaver.

Speedball

The Bitmap Brothers, 1988

Released just under a year after Xenon (which came out in January 1988), Speedball saw the distinctive Bitmap style back in action – this time in a bloody,

futuristic sports simulation. They had now been joined by graphics expert Mark Coleman, who later went on to draw for all of their hits, including Gods and Magic Pockets. Speedball cemented the Bitmap's reputation and proved they were more than a 'one hit wonder'.

Populous

Bullfrog, 1989

Bullfrog wasn't new to the ST – it had previously had moderate success with the shoot-em-up Fusion the year before, although virtually all of the game was created by Glenn Corpes alone. Populous, however, was a

remarkable turning point and truly created a new genre: God games. Populous was played on a map with your people starting off at one corner and the enemies starting in the opposite corner. The idea was to trash your opponent by manipulating your dedicated acolytes into collision with the enemy. You could raise and lower the land, flooding areas or building mountains – the flatter the land, the faster your people could expand and build bigger and better houses and castles.

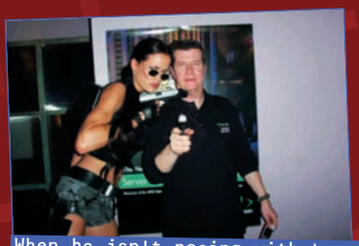
Wings of Death

Thalion, 1990

By 1990, the ST coders, especially those involved in the ST demo scene, had started to really unlock the potential of the hardware and Wings of Death was one of those technical achievements that only demo coders could make happen. Originally titled Spellbinder and then Wings of War, it was one of the first games that took advantage of the STE where possible and Wings of Death was a graphical and audio feast. From the 512-colour opening title page to the raster-coloured options screens, to the super-smooth scrolling techniques and fast frantic gameplay that never dropped a frame (even with up to 95 objects on the screen), the game didn't let up. Thalion went on to produce and release more famous ST games including the likes of Enchanted Land, Chambers of Shaolin, Amberstar, No Second Prize and Lethal Xcess. Today it is still regarded as one of the premiere ST development teams.

>The inside story

The Product Manager for the Atari ST in the UK was Darryl Still, who was with Atari from 1988 to 1996. We talked to him about the ST and his memories of it



When he isn't posing with Lara Croft look-alikes, Darryl Still runs the European Developer Relations Division at Nvidia

RG: Tell us about your roles at Atari.

DS: At Atari I had a number of roles, including setting up the software division with Rob Katz (currently running Electronic Arts Australia), product managing the ST (during the successful times when it was the best-selling gaming machine in Europe) and occupying the position of Marketing Manager for the launches of the Lynx and Jaguar. I also co-ran the European development studio with Al Bodin who is now at Xbox. I left Atari in 1996 to work for Electronic Arts.

RG: In what was predominantly an 8-bit world at the time, what were your first thoughts upon seeing the ST for yourself?

DS: My memory is a bit dim, but I do clearly remember the first ST we received in the office and, of course, the first time we got a CD drive for it (obviously, there was a delay between these two things!), but the effect was jaw dropping.

RG: Were you much of a gamer back then?

DS: Yeah! I'm actually old enough to remember being addicted to Pong as a child! But in the arcades I played Space Invaders, Galaxian and Pac-Man, and there was a table-top football arcade game I used to play in Reading University student union bar for hours. The first real home computer addiction I remember having was for Monsters by Acorn for the BBC, but I also played a lot of Speccy and Oric games. My first industry job was at Incentive Software, and Splat! for the Spectrum was soooo addictive. I built up quite a collection of Commodore 64 titles and would play hours of Summer Games with my mate and our girlfriends (see, I wasn't so much of a gamer that I didn't have girlfriend). Our favourite C64 game was called Rocketball and was based on the Rollerball film.

RG: As you were in charge of the software division, could you outline a few of your key responsibilities?

DS: We had to market stuff under the ARC software brand for the ST, because it was more cost-effective to develop on the ST, Amiga and PC at once – that and the fact that Atari couldn't officially develop on rival platforms! The biggest seller in that range was a title called Borodino, which was a war game that was probably the grandfather of the Total War series. We also dealt closely with all of the other ST developers and publishers, and put together the multi-game packs that came with the hardware.

As for software titles, the biggest nightmare had to be Kick Off. We worked so hard ensuring full compatibility of software when we moved from the STFM to the STE. We worked closely with all of the big developers and publishers. Then, on the week of the STEs release, out of some Nissan hut in deepest Kent came this unheralded soccer title that no one had ever heard of, but suddenly everyone wanted, and it crashed on the STE causing 'STE incompatible with

>Game STation

There are vast lists of classic Atari ST games worth checking out – here are some titles to get you started:

Bloody Money (Psygnosis): A conversion of the Amiga classic, the super-smooth scrolling lulled you into a false sense of security before the onslaught started.

Flood (Bullfrog): After its phenomenal success with Populous, Bullfrog returned to its gaming roots with this classy platform shooter, which contained some innovative features for the time, such as sticky platforms and bouncing grenades.

Thunderstrike (Millennium/Logotron): Extremely fast 3D action with less emphasis on realism and more on arcade fun.

F-19 Stealth Fighter (Microprose): A comprehensive 3D flight sim based on what was, at the time, leaked data from Lockheed. It saw you piloting a low-level, all weather, ground strike and reconnaissance plane.

Kick Off (Anco): The Dino Dini classic that ate away dangerously large portions of the time of all who touched it. The action was firmly centred around the football.

Stunt Car Racer (Microprose): From Geoff Crammon, the same talented developer who bought us Microprose Formula 1 Grand Prix, this 3D racing game removed all the boring elements and added insane stunt tracks!

Bloodwych (Mirrorsoft): Think Dungeon Master, but with two-player simultaneous action and loads more characters and monsters to deal with and you're close.

Interphase (Mirrorsoft): Probably the first real cyberspace game. You flew through the circuits in glorious fast 3D, hacking your way into the system. A masterpiece of gaming and security evasion.

Midwinter (Microprose): A meteorite has struck earth, everything has gone really cold and you are one of a small band of people left on an island. Then the hostiles attack. Innovative's use of fractal landscapes combined with extreme strategy elements made this, and its sequel, Flames of Freedom, a true classic.

Llamatron (Jeff Minter): Forget commercial games; this was a £5 shareware treat of the highest magnitude. Picture Robotron, add in a healthy dose of llamas, coke cans, spliffs, fractal symbols, wild acid sound effects and superb playability and you are half way to experiencing Llamatron.

Darryl was responsible for putting together the Atari ST software bundles

STFM' stories in the big weekly games magazines of the time. Once we had fixed the problems however, we did spend an awful lot of time going back to check again that it worked! That was a great game.

RG: What did the role of product manager entail?

DS: There was nothing typical about the job. Putting the packs together, running the events (like ECTS, at which Atari usually had one of the biggest stands), TV advertising (remember the advert where the kid pulled his face off and he was a robot underneath?), packaging, press advertising, PR, co-promotions with Kellogg's and the like.

RG: The ST enjoyed good early success, but then along came the Amiga. Why do you think it took so long for Atari to fight back with the likes of the STE and Falcon?

DS: We were fighting back from the beginning, but often when you are in the lead position, you have to take a different track. A leader should not acknowledge externally the existence of the second place player, but internally you are doing everything in your power to keep that pest from catching up. This is often seen from the outside as complacency, but on the inside I can assure you there was no such thing. However, once the Amiga overtook the ST, it took Atari too long to recognise that the mode of attack from second place is entirely different. I think there were two key mistakes we made at this time. One we had control of in Europe and the other came from Head Office in Sunnyvale, California.

The first problem was actually the 21 game packs that came with the ST. Whilst they were a great commercial success, they also succeeded in annoying the development community as they had a drastic effect on third-party software sales. After all, people got 21 quality free games with their ST, so they didn't need to buy any others for months. This caused the developers to build on the Amiga as their lead platform. This extra development time allowed them to expose the areas where the Amiga had a small technical superiority. Whereas before when the ST was the lead, Amiga games were a simple port and the versions looked identical. This mistake gave Commodore something to grasp onto, and it grasped it very well.

The second problem was the delay between the STFM and the STE. In a somewhat ironic twist of fate, given the ST's creation, this was actually caused by the lead hardware designer leaving the company and there being a major time delay in the new people understanding his blueprints and vision for the next generation ST. Then when the STE hit, the Kick Off issues described earlier held us back.

RG: Was there any software or hardware you remember that never saw the commercial light of day?

DS: Not for the ST. There was one piece of Jaguar software called Zero-5, which was an amazing game we were working on at the end, but it only got a staggered posthumous release through another source when Atari was long gone. I do fondly remember the discussions around the game Vixen because of the fact that it was a word you couldn't use in Germany because it meant 'fuck', so they had to change it, after great debate, to 'She Fox', which is a classic turnaround.

RG: Did you ever meet any of the Tramiels? Jack was always renowned for his 'business is war' mentality – did it come across in his personality?

DS: I only met Jack once at the Jaguar launch in New York. I think I probably looked a complete idiot, because I had heard so many horror stories over the years at Atari leading up to that point, that when I finally met him I was speechless and just made grunting noises when he asked me politely what I did. I met Sam Tramiel many times, and whilst he had a ruthless streak, he was a seriously nice guy. I remember one really fun evening playing darts with him at a pub in Englefield Green, near Windsor. As with most Americans, darts obviously wasn't a familiar game to him, but his competitive streak really came to the fore! Leonard Tramiel was a boffin – a real Tefal head in his white coat in the lab! He spoke a different language to most of us, so whilst I met him a few times, we never really had a conversation.

RG: What was your favourite piece of Atari hardware ever?

DS: I would have to say the Lynx – a seriously underrated games machine. I still have two at home that I link up to play Checkered Flag head to head with my son. I think it was way ahead of its time.

RG: How do you feel about the way home computing has progressed over the years? Does any part of you ever yearn for the bygone times when booting a computer took seconds and a blue-screen of death only meant game over in Time Pilot?

DS: I think everybody looks back with rose-tinted spectacles. I am sure if you put half of the games I have remembered fondly in front of me today I would say "What is this steaming pile?!", but they were good days. What I miss more than anything is that there were few genres and not everything had to fit into them, so you would see a truly original game idea come to fruition more often.

RG: Is it strange seeing the Atari brand enjoying such a high profile in the games industry at the moment, linked to the likes of Unreal 2, Driv3r, etc?

DS: It's great to see the brand back – although Sam Tramiel will be having kittens about what they've done with the logo! The Fuji device always had to be before the Atari name, beneath it was a pre-Tramiel Warner Brothers version thing. Having it in amongst the lettering itself (as Infogrames has it now) would have been unheard of! RG*

:-Web resources

www.atari.org
Current Atari news for all platforms.

http://dhs.atari.org
The Dead Hackers Society. Full of Atari-related news, downloads and demos.

www.creamhq.de/ymrockerz
The YM Rockerz site, full of classic and remixed ST music tracks.

www.megacom.net/~q-funk/ST
The Atari ST Quick FAQ – more answers than we could ever hope to print here

www.atarilegend.com
Atari Legend. Dedicated to the ST, well updated.

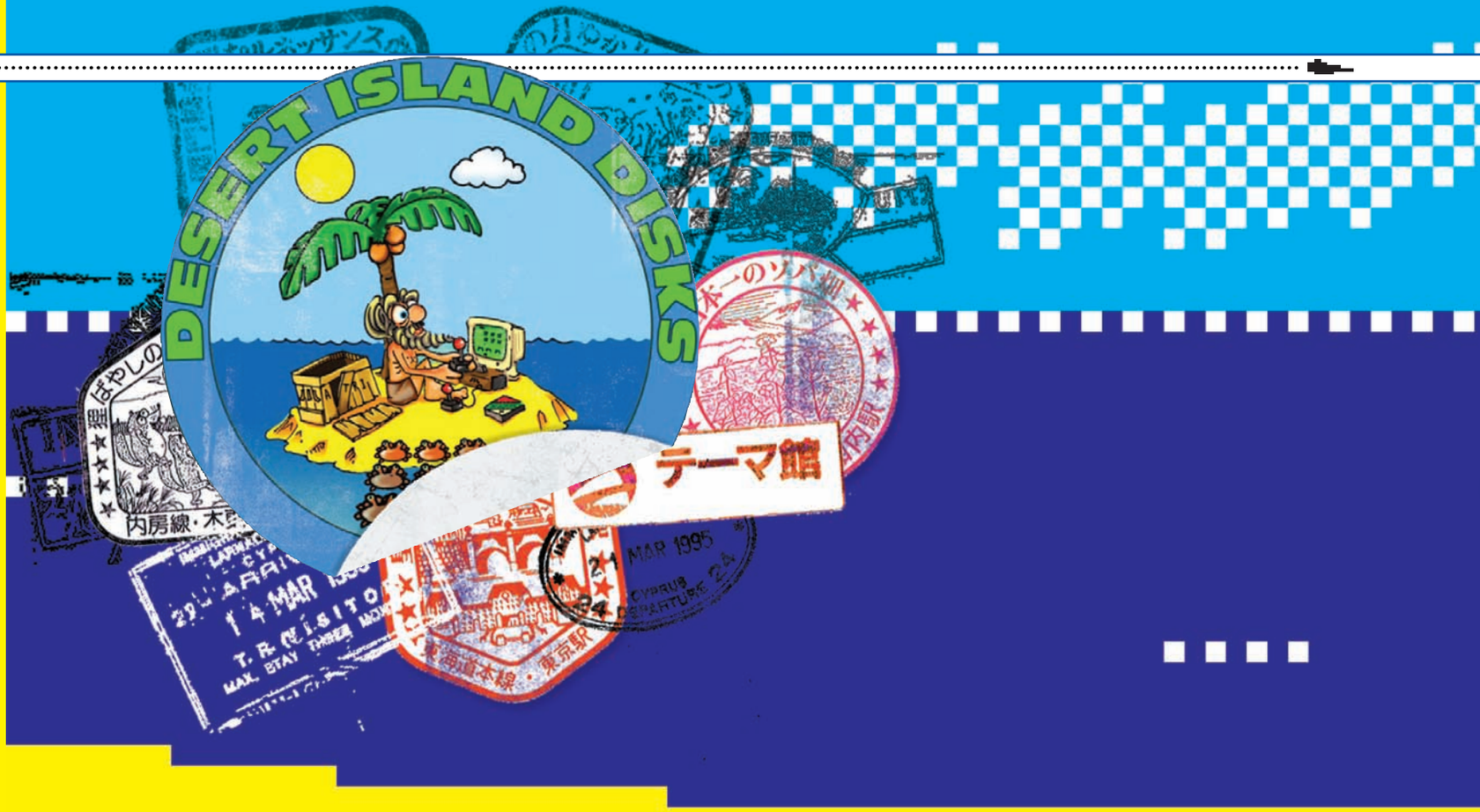
www.atari-forum.com
Join fellow Atarians on this active forum.

www.atari.st
Huge range of ST games and developer information.

www.1632systems.co.uk
One of the last places left to buy Atari ST games and hardware.

http://tamw.atari-users.net
If it's to do with MIDI or the ST, you'll find it here.

http://no-fragments.atari.org
No Fragments is an archive of just about every ST demo ever.



>Desert Island Disks

Another month, another castaway. Paul Drury talks to Keith Campbell, adventure game columnist for Computer and Video Games Magazine throughout the Eighties

Multiplayer, clan-based, competitive deathmatches – something you'd associate with online Quake rather than adventure gaming in 1980. But then Keith Campbell has always had an almost evangelical desire to spread the word about the joy of text.

"Myself and three other colleagues had TRS-80s, so adventure evenings began. We'd set up teams of four people in each corner of the room with a micro, and see who could get the furthest by the end of the night. The first evening we played one of Scott Adam's games, Ghost Town, and I know that five people went out and bought a TRS-80 after that, just to play that type of game. They wanted more adventure evenings, but a tenner a time for a game wasn't cheap, so I decided to try and write my own..."

>WHO?

Keith Campbell, adventure columnist for C&VG, pictured here with the first issue of the magazine and his Book of Adventure...

Creating adventure games could have been seen as quite a challenge to someone who grew up in a time before individuals had any real access to computers. Born in Brighton in 1940, Keith left the local Varndean Grammar School at 16 to train as an Electrical Engineer and work for Seeboard, the regional Electricity Board. He does remember an analog computer being built at Brighton Technical College where he completed his Diploma, "but it took so long, I'd left before it was ever finished," and using a typewriter terminal connected to an IBM Mainframe whilst with Seeboard. Did he get to play the grandaddy of interactive fiction, Colossal Caves, then?

"They denied it existed... it wasn't until 1981, after I'd been there over a year and they trusted me, that they admitted it *was* on our network and showed me how to access it. But by that time, I'd already discovered Adventureland."

Keith's interest had been fired by the purchase of a TRS-80 in 1980. "I was intrigued by the whole thing and wanted to see what I could use it for." His first programming effort wasn't an adventure game – it was called Creole Lobster Catcher, the catchy title a reworking of Caribbean Fisherman, a game he'd seen running at a terminal at Romney Marsh Comprehensive, where he was Governor. The game spewed out paper to describe your fisherman's progress and Keith 'borrowed' the concept, converting it to be displayed on a screen. He remains a little embarrassed about this plagiarism, which might explain his next game being entitled Honest Joe, a horse racing game with the original slant of being from the bookmakers perspective. Both titles were published by a Molimerx, a software supplier based in Bexley Hill, who would play a key role in Keith's career. Another crucial moment was when he brought his Tandy in to work to impress some important visitors and a friend handed him a tape that just read 'Adventureland'.

"We got together in the boardroom and loaded it up. We hadn't a clue how to play – no manual or anything, just a sentence on the screen saying, 'Tell me what to do.' Someone said, 'Perhaps you can move,' so we typed in 'Go East'... it took us a long time to grasp the fact that we could not only pick things up, drop them and move around, but we could do things that changed the environment, like chop trees, move rocks and find new exits."

Keith was spellbound and immediately mail ordered the game. That Saturday, he sat the whole family down to play and by the end of the week, they had solved their first adventure. "It prompted me to try myself, though in BASIC rather than using Scott's machine code." His first three adventures, Fairy Tale, Wonderland and Dreamworld, kept the computer club happy and the group served as a useful playtest for the games. The trio were also published by Molimerx.

Prating about

The Molimerx titles were modest successes, but more importantly they served the vital function of bringing Keith's name to the attention of one Terry Pratt, who was looking for someone to write a regular monthly adventure column for a soon-to-be-launched magazine that he was to edit. Terry contacted Molimerx to see if they had any adventure game writers who might be persuaded to turn their hand to journalism. They had two names: Keith Campbell and Brian Howarth (who went on to write the Mysterious Adventure series).

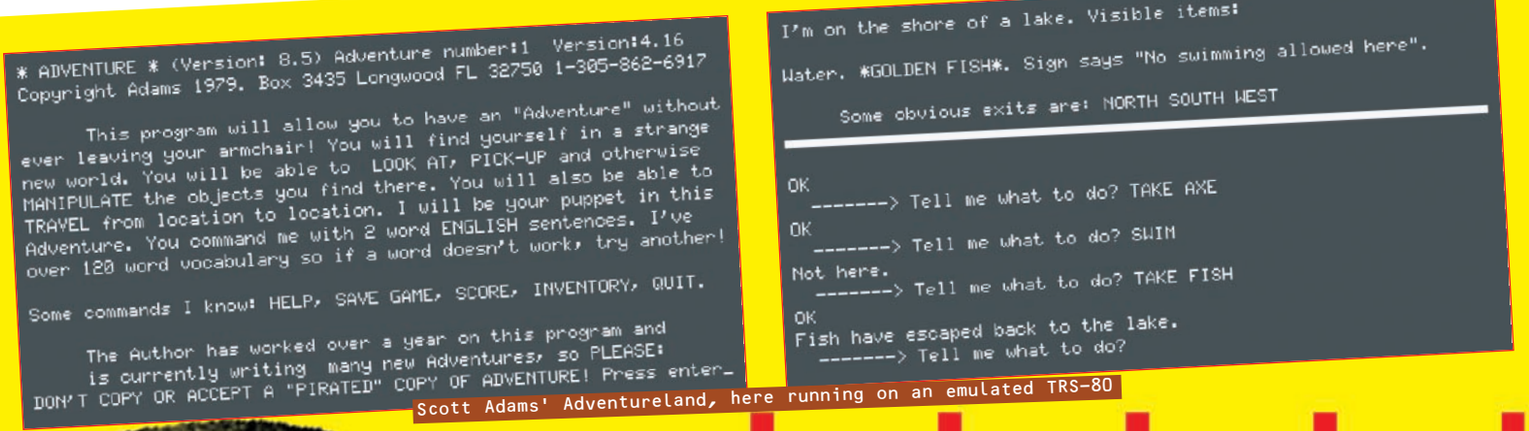
"I've often thought I got my break because my surname began with C rather than H, so I got the call over Brian. Still, when I got the message from my wife Ruth that someone from Computer and Video Games magazine had rung called Pratt about writing for them, I didn't believe it. The magazine didn't exist and with a name like Pratt I thought it must be someone having a laugh..."

Fortunately, Keith determined the offer was indeed genuine and quickly accepted, having had an interest in writing since childhood. He recalls the pre-launch party (with the magazine having changed publisher to Emap before the first issue), which was held at the London Planetarium, where the pinnacle of current personal computer technology was on display – the VIC-20. There was an optimism in the air, perhaps fuelled by the free booze on offer, but Keith doesn't believe anyone there really believed the magazine would still be going today.

"I didn't think I'd have enough to say for a year, let alone a decade," he smiles, nodding towards the precarious pile of every issue of C&VG he appeared in. In the early days, software releases were fairly scarce, and he had to actively send off for games to review. However, Keith also included programming tips on how to write your own adventures. Looking at those first columns, it's great to see the references to MID$, nested loops and concatenation – they show faith in the intelligence of the reader and a refusal to dumb down. Perhaps with these monthly programming sections and later with his book The Computer and Videogames Book of Adventure, Keith helped stimulate a software-writing scene that blossomed and it seems almost karmic that this should soon lead to dozens of adventure games arriving for review each month.

Community spirit

Keith may have contributed a little to the programming side of things, but he was instrumental in creating a


* ADVENTURE * (Version: 8.5) Adventure number:1 Version:4.16
Copyright Adams 1979. Box 3435 Longwood FL 32750 1-305-862-6917
This program will allow you to have an "Adventure" without ever leaving your armchair! You will find yourself in a strange new world. You will be able to LOOK AT, PICK-UP and otherwise MANIPULATE the objects you find there. You will also be able to TRAVEL from location to location. I will be your puppet in this Adventure. You command me with 2 word ENGLISH sentences. I've over 120 word vocabulary so if a word doesn't work, try another!
Some commands I know: HELP, SAVE GAME, SCORE, INVENTORY, QUIT.
The Author has worked over a year on this program and is currently writing many new Adventures, so PLEASE:
DON'T COPY OR ACCEPT A "PIRATED" COPY OF ADVENTURE! Press enter
I'm on the shore of a lake. Visible items:
Water. *GOLDEN FISH*. Sign says "No swimming allowed here".
Some obvious exits are: NORTH SOUTH WEST
OK
-------> Tell me what to do? TAKE AXE
OK
-------> Tell me what to do? SWIM
Not here.
-------> Tell me what to do? TAKE FISH
OK
Fish have escaped back to the lake.
-------> Tell me what to do?

Scott Adams' Adventureland, here running on an emulated TRS-80

Here it is... Keith's first column in the inaugural issue of Computer and Video Games

Adventure

BY KEITH CAMBELL

ADVENTURE is arguably the most popular game so far adopted by the computing fraternity. It tempts the data processing professional to give up his lunch hour to search for hidden treasure in the mainframe and is also finding its way onto many a home and even business microcomputer.

It is a game which generates fervent enthusiasts. I was staying overnight at Brighton on a business trip and, to pass the evening, walked along the seafront, finding myself eventually in a little back street pub. Armed with a pint, I found the only spare seat next to a young man and started a conversation, during which it emerged that I wrote for a computer magazine.

"I know nothing about computers", said my companion, a microbiologist, "but I suppose you have one of those Pet things". Whereupon, a fellow sitting on a nearby bar stool interrupted. "Are you in computing? I am half of a software firm writing commercial software for Pets."

"I'm a Tandy man myself," I told him, feeling that was almost like a declaration of war. A lengthy discussion followed on the relative difficulties of programming the Z 80 against the 6502. Neil, our biologist, yawned and sipped his tequila. Until the conversation turned inevitably to Adventure.

"Isn't that a computer version of *Dungeons and Dragons*?" he asked, suddenly awake again. From that moment, the only lull in the conversation before closing time was when a round was bought. Three enthusiasts could not be stopped.

Adventure did originate from *Dungeons and Dragons*. It has appeared on many mainframe computers around the world. The original was written in Fortran and required 64K storage plus disc back-up. In this age of the micro, a fairly complex Adventure consisting of about 30 locations and a similar number of objects can be loaded into 16K of RAM.

Scott Adams scarcely exaggerates when he proclaims in the instructions appended to the Adventure series, that the player is able to experience an adventure without leaving his chair. For the Adventure formula is a game suited ideally to computers. A good Adventure can be totally absorbing and the danger of making a false move can become very real, as can the excitement of discovering a new exit or chamber.

So, for the uninitiated, what is Adventure? The game consists usually of a logical network of locations which must be explored or traversed. The locations can contain objects, creatures/monsters, and/or treasures, which may be carried and manipulated in sometimes obscure ways to achieve the objective of the game.

That objective may be to collect treasures, to carry out some specific act — like prevent a time-bomb from detonating — or to escape the network unharmed. That is achieved by entering instructions in plain language, usually a verb followed by a noun — e.g., go north, take keys, kill dragon.

In some games, movement is achieved by means of arrow keys. An Adventure is always words but sometimes may be augmented to a greater or lesser extent with graphics.

The player — unless he cheats by listing the program — has no way of knowing how many locations or objects exist but can plot a logical geo-schematic map of the network to aid him in his travels.

Most Adventures are written in source code, rendering them more difficult to analyse by listing, or disassembling, than to solve.

Machine-code games, as well as having the advantage of space economy, have an apparently instantaneous response adding to the dramatic effect of surprise.

If your machine-code Adventure is baffling you and you want to cheat, try breaking, re-setting or quitting the game — without turning off — and then enter this from command mode: FOR I = (start address of user RAM) TO (end address of user RAM): PRINT CHR$ PEEK (I):: NEXT

That will not give you an instant solution, but all the displayable characters will scroll up the screen, giving you a few good clues!

The most difficult part of writing an Adventure is to establish the theme and the plot. It is really like writing fiction, as it is necessary to have some theme which will hang everything together, while absorbing the player.

When you have hit on a theme, ask yourself if it has been done before. Once you have established your theme and plot, roughly draw the map of the network and place your objects. Think through your plot in some detail, making sure you have an in-built impossibility — e.g., you cannot get the axe until after you have chopped down the tree. Then think around some of the programming difficulties. I will start giving you tips on them next month.

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real community of adventure game players. The very nature of the genre means people get stuck and his Adventure Helpline became the equivalent of the Samaritans to those on the verge of a nervous breakdown, having got lost in the gargantuan maze of Level 9's Snowball, or losing the will to live trying to stop Thorin singing about gold in The Hobbit. Long before the Internet took off, the C&VG column functioned like a newsgroup or forum – adventurers shared knowledge with their fellow gamers and Keith constructed a database of thousands of clues and solutions to hundreds of games, again a precursor to the game FAQ websites that are so prevalent today.

Keith has fond memories of the contact he had with readers, and indeed has kept every letter he was ever sent. Was he aware he was part of a wider adventuring community, one that he had helped to create?

"Yeah, I suppose I was, especially at the Personal Computer World shows. We'd set up an Adventure Helpdesk and people would come up and introduce themselves and you'd know their names already. Seeing them face to face was great."

The PCW shows also allowed him to meet the adventure game writers in person, most notably Scott Adams. "He was there to promote his Questprobe series of games and I got an exclusive interview. He was my hero and I was slightly in awe. His agent, Mike Woodruff, took us all out for lunch and I remember Scott having pretty expensive tastes. I know the following year, when it was our turn to pick up the bill, my editor at the time, Eugene Lacey, leaned over and whispered, 'For Christ's sake don't let Scott get hold of the wine list – Emap will never be able to afford it.' Eugene had always operated an open-wallet approach to expenses, so that should tell you something. Next time we all ate together, Scott took us to the best French Restaurant in London, Le Gavroche. It was so expensive, only the host's menu had the prices on and when the bill arrived, Mike said, 'Scott, you could have bought a Sinclair C5 with what that cost.'"

Keith tells of the bond between writers, a genuine camaraderie that existed between those involved in the adventure scene. "After one show, a group of us decided we'd have an adventurer's evening – a few drinks down the pub and a meal in Earl's Court. There was Dave Lebling

Left to Right – Paul Coppins, Keith Campbell and Simon Marsh on the very first Helpline stand at a PCW Show

from Infocom, Ken Gordon from Magnetic Scrolls, Peter Moreland from Morden's Quest, Pete Austin from Level 9 and a strange couple from St Bride's School who'd produced some games using The Quill adventure writing package. They reported to be running a Girls Boarding School in Ireland, they were heavily made up and it was all a bit strange. They were possibly women... one didn't like to ask."

Not put off by the transvestite element, Keith did briefly join the ranks of adventure games writer, after being approached by Mosaic Publishing. He was initially reluctant, as the column took up so much of his time, "But then I heard about the money." He was sent a copy of The Unorthodox Engineers, a collection of science fiction short stories, and chose as his source material one entitled The Pen and the Dark. The game was released in 1984 for the Spectrum, C64 and BBC (interestingly, a Dragon conversion was produced by his son Neil, but was never published). The game did remarkably well, selling 20,000 copies and netting Keith around £12,000. Despite having planned out another adventure, The Subways of Tazoo, based on another of the short stories in the book, he decided against continuing as a programmer. "I didn't particularly enjoy writing the game and technical developments meant future games would have to have graphics and would go beyond just one person producing it. And anyway, I had my column to write."

A picture from the night out in Earl's Court during a PCW show, when adventure game authors met up for food and a few drinks

Time marches on

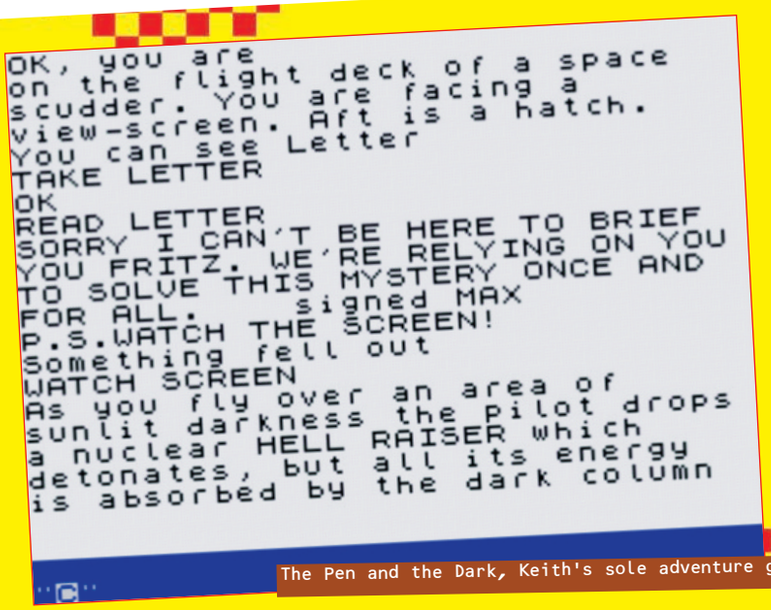
At its height in the mid-Eighties, C&VG would put aside up to eight pages for Keith's writing. Furthermore, the Helpline had its own page, adventure supplements were produced and he also began a regular column in Commodore User magazine in 1986. Keith even recruited three underlings – Paul Coppins, Simon Marsh and Jim Douglas – to provide game reviews that he'd then sub edit, paying them a retainer to support his burgeoning feudal empire.

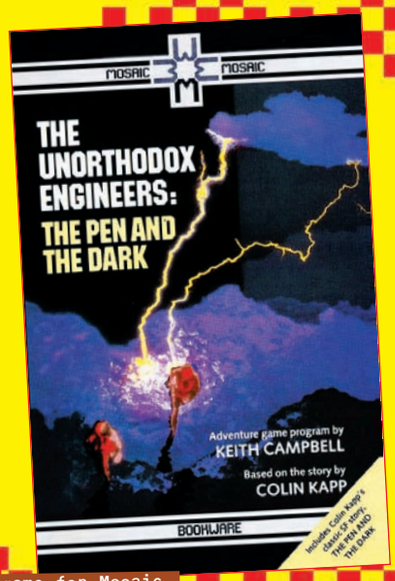
Things were changing though. By the late Eighties, adventure games themselves were evolving, with the mouse replacing text as point-and-click adventures grew in popularity. "Games were getting bigger and more expensive to produce, so there were less of them than in the days of sacks full of Spectrum tapes arriving around Christmas." Keith's column was merged with the Role Playing section in C&VG and it was perhaps symbolic that the column moved further towards the back of the magazine.

The real change came with the appointment of Julian Rignall as C&VG editor, which coincided with the publishers lowering the target age range for the magazine (sadly, something that's still apparent if you look at C&VG today). Coming from a purely arcade game background and previously writing for Zzap! 64, his approach to man management was somewhat different to previous editors.

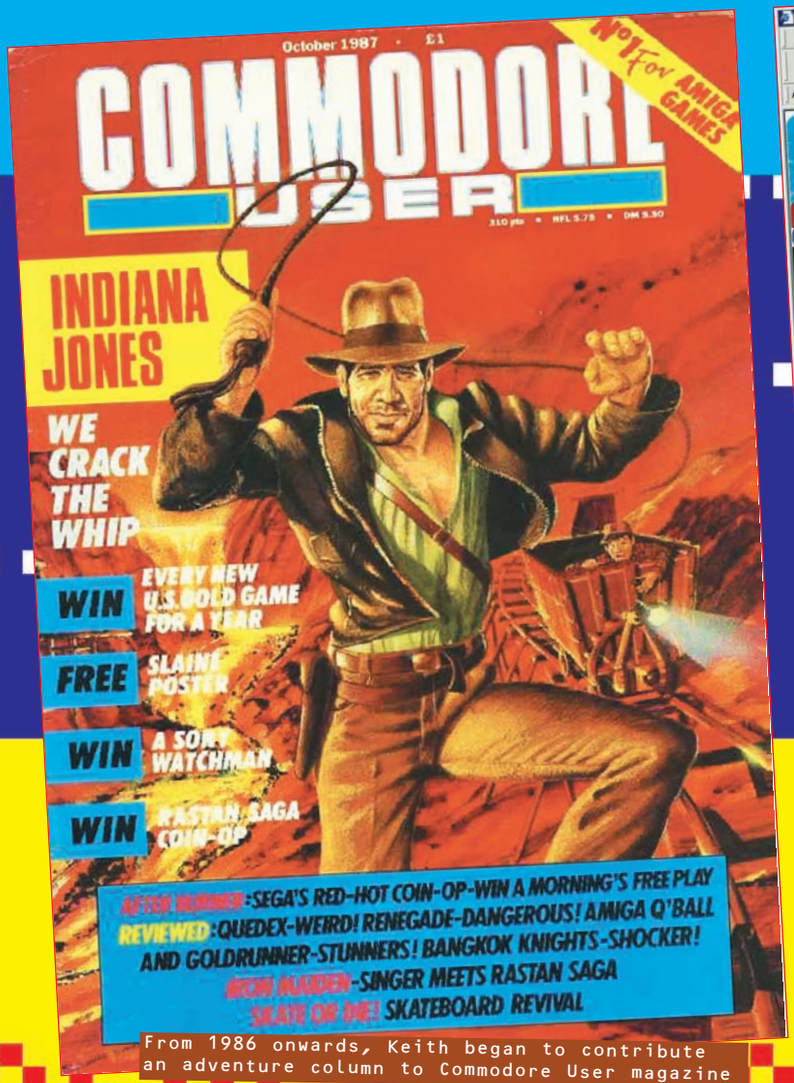
Keith With Anita Sinclair on the C&VG Helpline Stand at a PCW Show

"I still used to take my copy up to the offices in London every month and pass it on personally. When Tim Metcalfe was the boss, he'd put the kettle on or we'd pop out for a pint at lunch and discuss the column, any supplements we were doing... he always had time for me. With Julian it was a short 'thanks' and that was it. He just didn't want to know. One day at the start of 1990, I rang him up to tell him about some exclusives I'd got for the column and he just went 'Yeah, yeah, and by the way this will be your last one.' End of story. At one time, even though I was a freelancer, if I'd left of my own choice I think they would have had a party


OK, you are on the flight deck of a space scudder. You are facing a view-screen. Aft is a hatch.
You can see Letter
TAKE LETTER
OK
READ LETTER
SORRY I CAN'T BE HERE TO BRIEF YOU FRITZ. WE'RE RELYING ON YOU TO SOLVE THIS MYSTERY ONCE AND FOR ALL. signed MAX
P.S.WATCH THE SCREEN!
Something fell out
WATCH SCREEN
As you fly over an area of sunlit darkness the pilot drops a nuclear HELL RAISER which detonates, but all its energy is absorbed by the dark column



The Pen and the Dark, Keith's sole adventure game for Mosaic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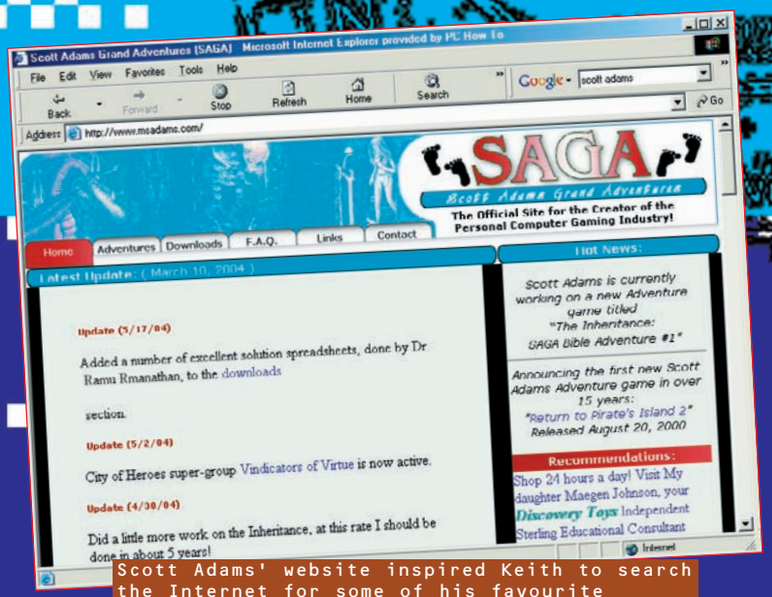
IRON MAIDEN-SINGER MEETS RASTAN SAGA
SKATE OR DIE! SKATEBOARD REVIVAL
From 1986 onwards, Keith began to contribute an adventure column to Commodore User magazine


Scott Adams Grand Adventures (SAGA) Microsoft Internet Explorer provided by PC How To
SAGA
Scott Adams Grand Adventures
The Official Site for the Creator of the Personal Computer Gaming Industry!
Home
Adventures
Downloads
F.A.Q.
Links
Contact
Hot News:
Latest Update: (March 10, 2004)
Update (5/17/04)
Added a number of excellent solution spreadsheets, done by Dr Ramu Rmanathan, to the downloads section.
Update (5/2/04)
City of Heroes super-group Vindicators of Virtue is now active.
Update (4/30/04)
Did a little more work on the Inheritance, at this rate I should be done in about 5 years!
Scott Adams is currently working on a new Adventure game titled "The Inheritance: SAGA Bible Adventure #1"
Announcing the first new Scott Adams Adventure game in over 15 years: "Return to Pirate's Island 2" Released August 20, 2000
Recommendations:
Shop 24 hours a day! Visit My daughter Maegen Johnson, your Discovery Toys Independent Sterling Educational Consultant
Scott Adams' website inspired Keith to search the Internet for some of his favourite adventure games

Keith has kept many mementos from his adventuring days, including Hulk review code and the accompanying letter from Scott Adams

for me. This was just so casual."

After eight years and 100 issues, recalling this shoddy treatment still gives Keith cause for bitterness, but not for any egotistical reason. "Suddenly there was no Helpline and no letters forwarded to me, so all these people I'd been writing to for years, I lost touch with. I felt cheated out of being able to say, 'This is my last column – goodbye.'"

His column in Commodore User also ended later that year, though in far more amicable circumstances, and though he continued to write occasional reviews through the Nineties, he states that without being regularly in print, you were out of the loop and his contact with the world of games was marginal. He continued working for Seeboard until it was privatised and working conditions rapidly deteriorated, meaning that in 2000 he was relieved to take early retirement. "When I was writing, I always thought, 'When I retire I'll have plenty to do, I'll be able to concentrate on my writing and have more time to reply to readers.' Of course, it had all gone by then."

Game over?

For the first time in an afternoon filled with laughter and happy reminiscing, a tangible sadness descends. But surely he's aware that the adventure game community is still vibrant, new games are still produced, and old ones revered and discussed? Surely he's been contacted by old readers over the years? Keith shakes his head. "Sometimes I thought about trying to track down some of the old games I remembered, but didn't know where to start. I'd no idea they were available free on the Net." We're devastated. We can't believe that such a champion of the genre, and such a lovely man, is unaware of how many people remember his column with such affection. But like all good adventure games, there is a wonderfully satisfying conclusion.

"Then just three weeks ago, I was on the Internet and I tapped in Scott Adams' name. I was amazed to find he had his own website. I emailed him and he replied within the hour, saying many people had asked about me over the years. Then you at Retro Gamer got in touch, and I've discovered I can download all these great games – I'm starting with Scott's for nostalgia's sake, then all the Infocom games I never got to solve, the Magnetic Scrolls ones... it's like a whole world has opened up again."

So, ironically, we place Keith Campbell on an imaginary desert island and in so doing, rescue him from an actual island where he lived for over a decade, oblivious of the fondness and esteem he is held in by so many adventure gamers. He'd love to hear from all those people he never got chance to say goodbye to, though remember to mention adventure games in the subject line to distinguish yourselves from smut peddlers and loan sharks. You'll find him at **keith_campbell@ntlworld.com** or else in a twisty maze of passages that are all alike...

IMMIGRATION LARNACA 21 MAR 1995

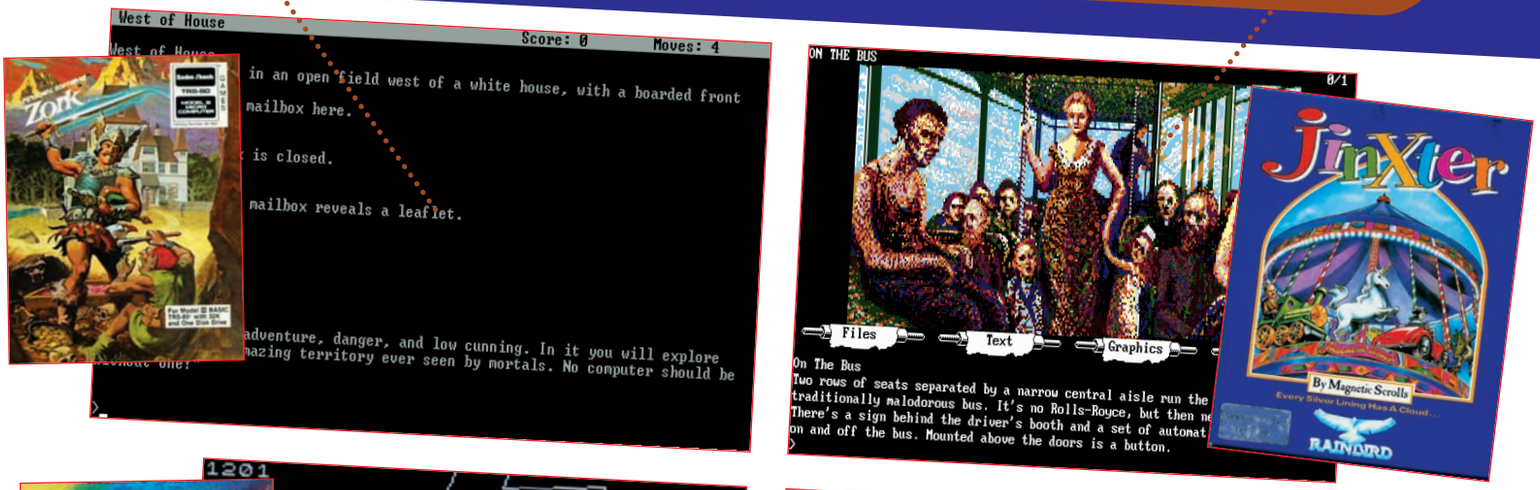
Zork Trilogy

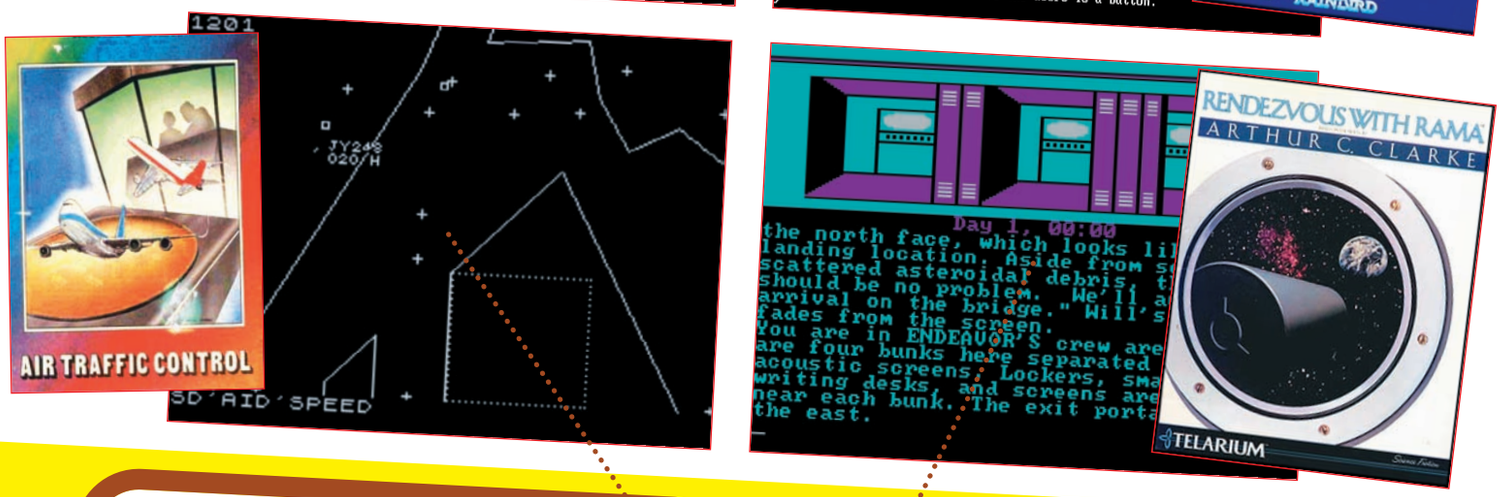
You might think I'm cheating here by taking three games, but Zork, as far as I remember, was originally known as Dungeon Adventure and came free with a PDP-11, and possibly, later, a VAX computer. (These were minis, not home computers.) Dungeon Adventure was split into three to run from floppy disk on home PCs. This gave it a verbosity that couldn't be achieved with memory resident adventures that ran from tape, bearing in mind that in those days there wasn't a big enough market for anything that wouldn't fit into 16Kb. Zork had all the puzzles, but its text was able to add humour and build a whole folklore about Lord Dimwit Flathead and the Great Underground Empire.

Jinxter

With the advent of 16-bit machines, Magnetic Scrolls added breathtaking 'roller blind' graphics to what were essentially text adventures, running from the new generation of 3.5in disks. The purists could play with the graphics turned off – if they could resist it.

Full of humour with a cockney accent ("Can't get any wossname these days, narmean?"), Jinxter narrowly beats Guild of Thieves in my estimation (I still have the 'swag bag' given to reviewers at the GoT press launch – the counter staff at Nationwide give me a strange look when I take it full of my saved small change to deposit in an account for my grandchildren!) Playing it reminds me of one of my very pleasant visits to the Magnetic Scrolls offices near London Bridge. Whatever became of that clever lady, Anita Sinclair?


West of House
Score: 0 Moves: 4
in an open field west of a white house, with a boarded front
mailbox here.
is closed.
mailbox reveals a leaflet.
adventure, danger, and low cunning. In it you will explore
mazing territory ever seen by mortals. No computer should be
Zork
ON THE BUS
0/1
Files
Text
Graphics
On The Bus
Two rows of seats separated by a narrow central aisle run the
traditionally malodorous bus. It's no Rolls-Royce, but then ne
There's a sign behind the driver's booth and a set of automat
on and off the bus. Mounted above the doors is a button.
Jinxter
By Magnetic Scrolls
Every Silver Lining Has A Cloud...
RAINBIRD



Air Traffic Control

A little-known game written, as far as I know, solely for the TRS-80. Played in real time, you have 26 planes to see through your control area, and you choose the time in which you must do it, from 30 minutes to 15, I think! You have two airports set on a grid of small circular points, each with its own approach and take off directions. You are notified when a plane (codenames A-Z) is about to enter your area, told whether it is a jet or a prop (they travel at different speeds) and are given its altitude on entry (or if waiting to take off), its destination and heading. All aircraft must be kept 1,000 feet apart vertically and a mile horizontally, and leave the area at the correct location and heading.

Things get very hectic when you are dealing with a number of aircraft at the same time. It keeps you on your toes, your reflexes sharp, and gives a great sense of achievement when you've despatched all the aircraft without a disaster! Pity there isn't a version that runs on modern PCs with the same user interface!

Rendezvous with Rama

This game is based on the book by Arthur C Clarke – I couldn't put the book down when I was reading it. I played the game on a C64 and didn't get too far after descending into the cylindrical world. But that was purely due to the slow grinding of the C64 disk drive, which tried my patience. I would love to fully explore Rama on a modern PC.

Leisure Suit Larry

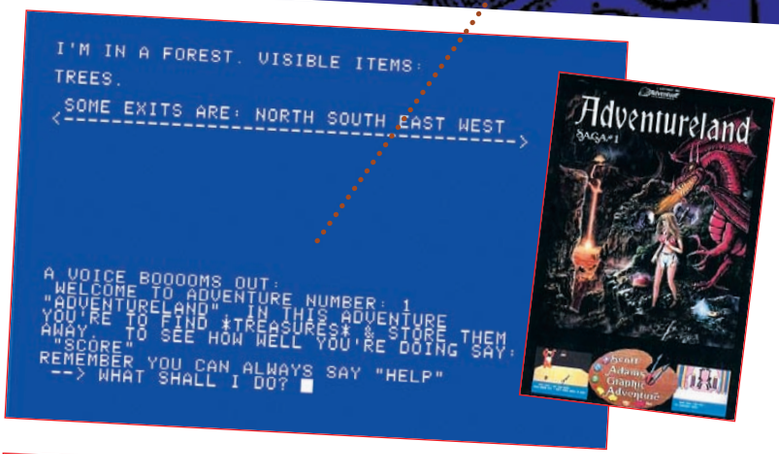
Amigas, Atari STs, and PCs were becoming more widespread as Sierra started releasing animated graphics adventures in a number of series – King's Quest, Space Quest, etc. Commands were by text entry and the player controlled a character that moved from place to place, with new location backgrounds loading from disk (frustratingly slowly if they weren't on the hard drive.) Once again, I'm going to cheat and request the whole series of Leisure Suit Larry. It's crude and humorous, with later instalments requiring an almost arcade-like skill to get through some of the problems.

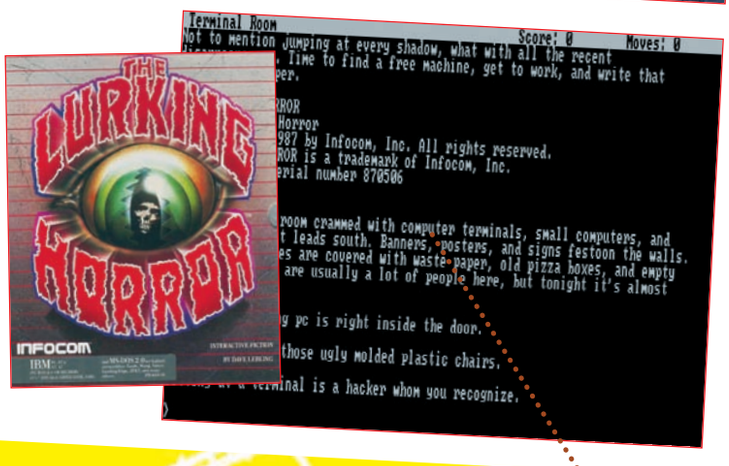
I met the author, Al Lowe at a press launch on the HMS Belfast, and got a Larry Towel, which I still use today. I named a beautifully sleek grey kitten Larry (because he had a leisure suit!) who recently passed away. I would want Larry to be with me on the desert island for all the memories he would evoke, as well as the crude laughs he would bring.

Adventureland

The first adventure game I ever played. I had just bought a TRS-80, and was lent the tape by a colleague at work, with no instructions or tips on how to play, never mind how to get past even the first problem! I sat down to play it with the family, and it took long enough for us to realise there was more to do than just move around and pick up and drop things. Its terse text was enhanced by the dramatic instant block redisplay of the screen, with Scott Adams using the powerful features of the Z80 processor. And it all fitted into 16Kb!

It was the game that got me hooked on adventures, presenting a challenge that led me to devise and program a few myself, which in turn led to me being invited to write a regular adventure column starting in issue one of Computer & Video Games magazine. A game with such memories still gives me a thrill when I play it.


I'M IN A FOREST. VISIBLE ITEMS:
TREES.
SOME EXITS ARE: NORTH SOUTH EAST WEST
A VOICE BOOOOMS OUT:
WELCOME TO ADVENTURE NUMBER: 1
"ADVENTURELAND" IN THIS ADVENTURE
YOU'RE TO FIND #TREASURES# & STORE THEM
AWAY. TO SEE HOW WELL YOU'RE DOING SAY:
"SCORE"
REMEMBER YOU CAN ALWAYS SAY "HELP"
--> WHAT SHALL I DO?
Adventureland



The Lurking Horror

This is my favourite Infocom adventure. It has a very satisfying set of puzzles, many of which appear baffling but are not impossible. Released in the heyday of Infocom adventures, at about the same time as Stationfall, it will remind me of an evening spent in the company of author Dave Lebling, who, with his wife, came along to an 'adventurer's evening' at a pub and restaurant, during the PCW show one year.

Spider Solitaire

Addictive because it's there whether you want it or not. It provides a break from more serious tasks on a PC – I don't think I could exist without an occasional 'fix'!

>Over the Rainbow

The much-loved Sinclair hosted thousands of games, yet many were so tough that very few were ever actually completed. Those you did manage to finish often rewarded you with little more than a cursory text message, or worse still, just looped back to the beginning like some awful recurring nightmare. But as Craig Vaughan discovers, there were little pots of gold lying at the end of some Spectrum games...

Gamers these days have it all their own way. Completing Splinter Cell, Deux Ex, Thief and the like has never been so easy. Technology in the form of hard drives, memory cards and instant checkpoints means saving progress and triumphing against seemingly impossible odds have become the norm. Rewind 20 years, though, to the heyday of 8-bit computing and games were a lot less consumer friendly.

This is hardcore

With their efforts crammed into miniscule amounts of memory, programmers were far less inclined to assist the player in achieving their goals. Longevity was the key to a game's success, so it was commonplace to see hapless joystick jockeys having to complete games from start to finish with little or no assistance from coders. Sure, some charitable programmers offered level passwords, but putting aside the thriving tips industry and 'poking' culture that developed, this was truly the age of the hardcore gamer, an era when gifted players demonstrated their skills by completing games in one sitting. On the flip side, casual gamers suffered at the hands of outrageous difficulty curves and seemingly impossible odds, with most dipping in and out of numerous games but mastering none.

Unsurprising, then, that some two decades later the Internet finds itself home to sites dedicated to cataloguing and demonstrating the endings that 95% of gamers never saw the first time round. Of the computers and consoles from that era, it's the ZX Spectrum that's benefiting the most from the onward march of technology. As well as being the most widely emulated 8-bit computer on the PC, it's also the platform of choice for coders keen to innovate by adding features that are helpful to players.

Thanks to the advent of the RZX file format (a variation on the typical Spectrum snapshot) it is now possible to play Spectrum games in a variety of emulators, with your actions (specifically your joystick movements and key inputs) being recorded as you go. Once your efforts are saved, such files can later be played back to show your favourite game being completed from start to finish, thus opening up whole new opportunities for enthusiasts to demonstrate their skills and swap files with friends. The new file format has even led to an annual Internet competition, during which hopefuls prove their prowess by posting in-game recordings of them in action.

The fact is that everyone has a favourite title that defeated them all those years ago, and we all have a special place in our hearts for a particular software company whose games we loved but never actually managed to finish. These days, there's tremendous satisfaction to be had from discovering how the Ghostbusters managed to defeat the Stay Puft Marshmallow Man, or how Saboteur made it out of that building with the stolen disk before the bomb exploded. Equally, few people know exactly what evils awaited the unsuspecting gamer at the end of the Alien Highway, or how Trashman finished his worldwide travels. And how many hapless Spectrum fans managed to Stop The Express, prove Monty's innocence or become socially acceptable in Hampstead?

In this feature we take a look at Spectaculator, the emulator that's made answering these imponderables possible, and we chew the fat with several fanatics whose spare time is taken up running websites dedicated to archiving the best Spectrum game endings available. We'll also give you a blow-by-blow account of the best and worst game endings we've seen, complete with screenshots. And if that's not enough, a quick peek at this month's coverdisc will reveal over an hour of PC-compatible video footage that's been painstakingly compiled so you can view over 150 Spectrum game endings in the comfort of your own home, with priceless snatches of action taken from dozens of classic games.

Humble though the Spectrum may be, most players struggled against its sadistically programmed games

It's Spectaculator!

Arguably the best ZX Spectrum emulator available for the Windows platform, Spectaculator comes complete with the ability to play, record and save your favourite game endings. Coder Jonathan Needle explains all you need to know

RG: Tell us a little bit about yourself.

JN: I'm 32 years old and was born in Barnsley, South Yorkshire. I'm married to Louise and have one daughter, Emily. I have a degree in Computer Science and work for a large IT company.

RG: What are your childhood memories of the ZX Spectrum?

JN: Christmas 1983 was the beginning for me. I'd asked for a 16Kb model because the 48Kb seemed too expensive. However, Santa brought me the 48Kb model. It came with the usual Horizons tape and three extra games – Manic Miner, Ground Attack and Meteor Storm. Colour TVs were far too expensive so I had to plug it into a Hatachi black and white number. It

Another Spectrum bites the dust as development takes its toll on Needle's mental health

must've kicked out a hell of a lot of radiation because it didn't half dry my eyeballs out after a couple of hours' use! That's the reason that Spectaculator has a black and white TV option.

I'd asked for the computer to 'help with my education', but obviously, I just wanted to play games on it. At the end of the day, the Spectrum got me into computers big time and I ended up with a degree in Computer Science, so I guess my parents can't complain. I got hooked on programming fairly quickly. Starting with Sinclair Basic, I then got a copy of Toni Baker's book, Mastering Machine Code for your ZX Spectrum. Armed with a copy of Dev Pac, I wrote lots of small utilities and games, some of which I sold via the small ads in the back of Your Sinclair magazine. Eventually, in 1990 my Spectrum was boxed up and replaced by an Amiga 500 bought with the help of a student loan.

RG: Can you remember your first emulation experience?

JN: The first Spectrum emulator I saw was an incarnation of XZX running on the then state-of-the-art HP 9000s at university. It was quite basic but gave me the bug. At the time my main computer was an Amiga 4000, so I set about looking for Spectrum emulators for it. I settled on Peter McGavin's ZX Spectrum Emulator and decided I'd quite like to write my own, but once I'd started earning a living, I forgot about emulation for a few years. Fast forward to 1999, when I finally succumbed and bought my first PC. Not long after that I started getting back into emulation. With my interest rekindled I decided to write my own emulator – it had to be for the Spectrum because I grew up with and adored the machine. Initially the emulator was purely for my own use and satisfaction, but my wife and friends later persuaded me to release it to the public.

RG: Why write yet another Spectrum emulator for the PC?

JN: I don't think it was that the other emulators lacked features, it's just that emulators in general are too hard to use. Technical people write them for other technical people, with virtually no attention paid to things like ease of use. ZX32 showed me that it didn't have to be like that. I decided I wanted to write an emulator that while offering extremely accurate emulation, was also extremely easy to use. It would come with a full online help system and would install and uninstall like any other Windows application.

RG: Tell us about Spectaculator's strengths.

JN: Spectaculator has matured a lot in recent years. It's currently the most accurate Spectrum emulator you can get for the Windows platform. The thing that's really special is its usability. I reckon I've spent more time working on the user interface than the actual emulation itself. It's idiot proof – even people that never owned a ZX Spectrum can perform a couple of clicks and have a Spectrum game running in seconds. It's also developed, packaged and distributed like any other professional software product. My favourite feature has to be the simulated Microdrive motor noise. It's a bit of a gimmick but adds greatly to the retro feel of using emulated Microdrives.

Spectaculator is constantly being refined and updated by Needle

RG: Your emulator includes the ability to play and record RZX format files. Can you tell us about the birth and evolution of this format?

JN: Previously you could record game endings using the AIR format. However, this was a propriety file format and was only supported by one emulator. People wanted a format that would be open and not emulator dependant. After plenty of discussion, the beginnings of RZX emerged. The file format itself was developed as a community effort. As to why I implemented it in Spectaculator, I can see great benefits in being able to record games being completed from start to finish and stored in a small file for the joy of others who weren't quite good enough to complete the games themselves. It was also the 'cool' thing in Spectrum emulation at the time,

Spectaculator in action. You'll be hard pressed to find a game or file format that it can't handle

PC and rubber-keyed Spectrum working in perfect harmony to create Spectaculator

as well as being a nice diversion from the usual 'write code to emulate hardware' thing.

With Spectaculator's speed boost option (Speed on the Control menu), you can watch playback at 10x normal speed, so you can see games that normally take a few hours to complete finished in just a few minutes. There's also the question of gaming competitions – Philip and myself developed an open extension that allows RZX files to be digitally signed so that judges of competitions know that entries are genuine, rather than being hacked together. We managed to get this feature working in time for last year's Speccy Tour 2003 competition. Previously, most tour players had to use DOS-based emulators that don't work well with modern versions of Windows.

You can also record an AVI of the Spectrum's display using Spectaculator at full PAL resolution and frame rate. One day this feature will be very useful to the BBC when they finally get around to making a retro documentary!

RG: Can you describe your favourite Spectrum game endings?

JN: Wanted: Monty Mole is one of the few games I've actually managed to finish. I made an RZX action replay of my moment of triumph, so I hope you've put it on your coverdisc!

RG: You've kindly allowed us to include a 30-day trial of the emulator on our coverdisc, with the chance of a discount on the full version.

JN: The price of the emulator works out about £19.50 in the UK once you've added VAT. As a special offer to Retro Gamer readers, I'm offering a 10% discount. Your readers should try the 30-day limited demo on the coverdisc and if they like it, all they have to do is visit **www.spectaculator.com** and click the Buy Online link.

ZX Spectrum Microdrive emulation comes as standard with Spectaculator, including simulated file-accessing noises

When prompted, they should enter RGD95347 as the coupon code and 10% will be deducted from the purchase price. The offer is valid from Monday 30th August until Saturday 25th September 2004.

The RZX Archive...

Home to the Internet's largest collection of viewable Spectrum game walkthroughs, Daren Pearcy's RZX Archive (www.rzxarchive.co.uk) continues to go from strength to strength

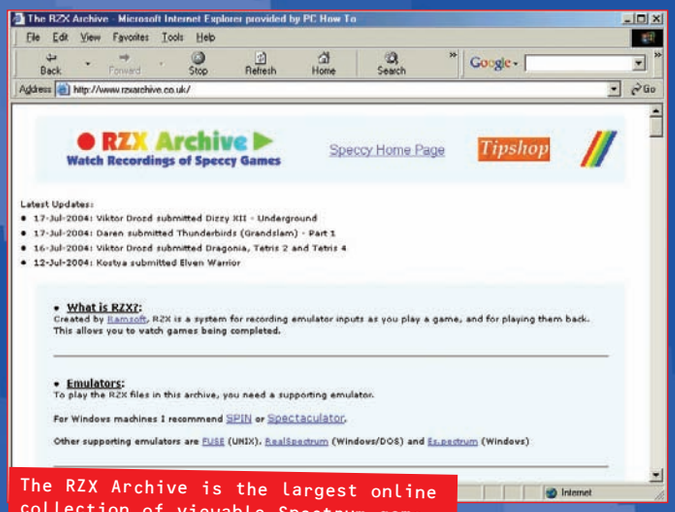
Daren Pearcy, host of the RZX Archive

RG: Tell us a little bit about yourself.

DP: I'm 33 and just married. I live in Wigan and work as a computer programmer for a medical instruments company. I got my first Spectrum for Christmas in 1983. It was great – my friends and I were the first generation to benefit from home computers. They were completely new and there was a lot of fun to be had from playing games and programming. In terms of 8-bit computers I only ever owned Spectrums. They were easy to use and had a huge catalogue of games written for them (several thousand). The magazines were excellent too, particularly Crash and Your Sinclair.

RG: What's your website all about?

DP: The RZX Archive has been going since October 2002. It gets tons of hits every week. It's


The RZX Archive - Microsoft Internet Explorer provided by PC How To
File Edit View Favorites Tools Help
Back Forward Stop Refresh Home Search Google
Address http://www.rzxarchive.co.uk/
RZX Archive
Watch Recordings of Speccy Games
Speccy Home Page
Tipshop
Latest Updates:
17-Jul-2004: Viktor Drozd submitted Dizzy XII - Underground
17-Jul-2004: Daren submitted Thunderbirds (Grandslam) - Part 1
16-Jul-2004: Viktor Drozd submitted Dragonia, Tetris 2 and Tetris 4
12-Jul-2004: Kostya submitted Elven Warrior
What is RZX?:
Created by Ramsoft, RZX is a system for recording emulator inputs as you play a game, and for playing them back. This allows you to watch games being completed.
Emulators:
To play the RZX files in this archive, you need a supporting emulator.
For Windows machines I recommend SPIN or Spectaculator.
Other supporting emulators are FUSE (UNIX), RealSpectrum (Windows/DOS) and Ez-spectrum (Windows).
Internet

The RZX Archive is the largest online collection of viewable Spectrum game walkthroughs

actually hosted on my home PC.

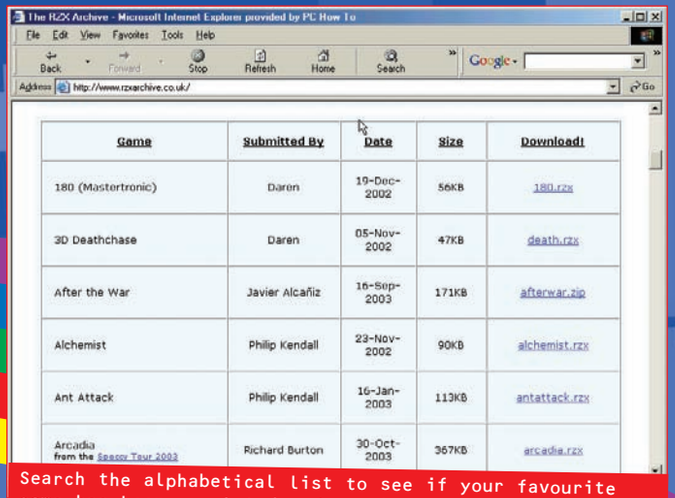
Ramsoft, an Italian Spectrum demo group, created the RZX file format (**www.ramsoft.bbk.org**). It's a cross-emulator system that allows you to record the game whilst you're playing it. Later, you can play the saved file back and watch yourself finishing the game. The inspiration for the RZX Archive came from a site run by a fellow Spectrum addict. The CSS AIR File Collection (**www.thespian.demon.co.uk/files.htm**) contained AIR files, but as they only worked on one specific emulator, they soon became an irrelevance for most of the Spectrum community.

RG: How has the site grown over the years?

DP: The RZX Archive has recently received its one hundredth game recording, and now has over 18Mb of files to download. It receives recordings from literally all over the world, including many games I'd never previously heard of. In Eastern Europe particularly, the Spectrum scene is still going strong, and games are being produced that contain pretty amazing graphics – and remember, it's all achieved in 48Kb, smaller than the JPEG images you see on most websites.

RG: Tell us about the very best and worst game endings you've witnessed.

DP: It's very difficult to name specific game endings that I love and loathe. The enjoyment for me is not so much in seeing the ending, but in the achievement of getting there. Some memorable endings include the Wally Week arcade adventure games. In all these games, Mikrogen made the effort to reward the player with something a bit special at the end, not just a simple


The RZX Archive - Microsoft Internet Explorer provided by PC How To
File Edit View Favorites Tools Help
Back Forward Stop Refresh Home Search Google
Address http://www.rzxarchive.co.uk/

Game	Submitted By	Date	Size	Download!
180 (Mastertronic)	Daren	19-Dec-2002	56KB	180.rzx
3D Deathchase	Daren	05-Nov-2002	47KB	death.rzx
After the War	Javier Alcañiz	16-Sep-2003	171KB	afterwar.zip
Alchemist	Philip Kendall	23-Nov-2002	90KB	alchemist.rzx
Ant Attack	Philip Kendall	16-Jan-2003	113KB	antattack.rzx
Arcadia from the Speccy Tour 2003	Richard Burton	30-Oct-2003	367KB	arcadia.rzx

Search the alphabetical list to see if your favourite game has been completed and catalogued

Stop The Express – and learn to spell. You always told your parents that your Spectrum would be educational

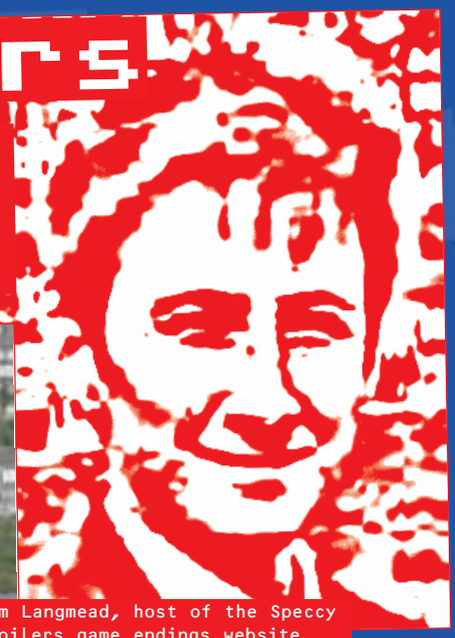
'Congratulations' message. Pyjamarama has a pretty neat fireworks display, for example.

Another ending that springs to mind is Stop The Express. It displays the message, "Congraturation – You Sucsess!" This Japanese translation cock-up inspired the title of the first website ever to feature Spectrum game endings, The Congraturations Archive (**www.congraturations.co.uk**). Amongst the worst of the offenders is the wonderful platforming game Chuckie Egg. This game has 256 levels, though I can only reach level 25. Apparently, if and when you finish level 256 it just starts back at level 1! No congratulations or anything after hours of work and all that effort! Basically, any game that gives a simple 'Congratulations' message at the end and nothing else deserves to go into the hall of shame. There are far too many games with lazy endings, though sometimes I understand that this couldn't be helped due to lack of memory. But as mentioned above, if getting there was fun, most players can smile because they're not that bothered about the actual ending.

Chuckie Egg had 256 manic screens, but no reward for completing them all

Speccy Spoilers

Speccy Spoilers is the Internet's largest archive of viewable Spectrum game endings. Webmaster Jim Langmead recently took time out to answer our questions



Jim Langmead, host of the Speccy Spoilers game endings website

RG: Please introduce yourself.

JL: I'm 30 years old and I live in Watford. I work as a graphic designer and I'm the sole maintainer of the largest online archive of Spectrum game endings, Speccy Spoilers (**www.speccyspoilers.co.uk**).

RG: What are your childhood memories of computer and videogames?

JL: My earliest memories are of playing on our family's black and white 6-in-1 TV game and a couple of chunky shoot-em-up LED handhelds. I also played on a family friend's Atari VCS – it was impressive, but it was also very expensive. My mate's dad was a computer programmer and as a result he managed to get hold of a Dragon 32 before they were even available in the shops! That was the first time I'd ever seen a computer with a keyboard and I was awestruck. I played a couple of games like Hangman and Horse, and then spent hours typing in random messages and swear words, just getting syntax errors. Despite this, my parents saw the 'educational' potential and soon we had a Dragon 32 of our own. I taught myself BASIC and began to write some low-res 'conversions' of arcade games that I'd seen on holiday, like Defender. Alas, by 1985 my family's Dragon 32 had broken beyond repair. But by then, I'd been won over by the delights of Manic Miner and 3D Deathchase, and before long I'd saved enough money to buy myself a Spectrum.

RG: Tell us about your website.

JL: The Congraturations Archive, a 'game over' archiving site, started life in November 1998 as a result of a suggestion in the comp.sys.sinclair newsgroup. In July 2003, after it became apparent that Congraturations was no longer being updated, I started Speccy Spoilers. I bought the domain name in February 2004, by which time I had managed to save and store about 120 ending snapshots. My site differs from The RZX Archive because that catalogues viewable walkthroughs of games from start to finish, whereas I cut to the chase and just record the last few seconds.

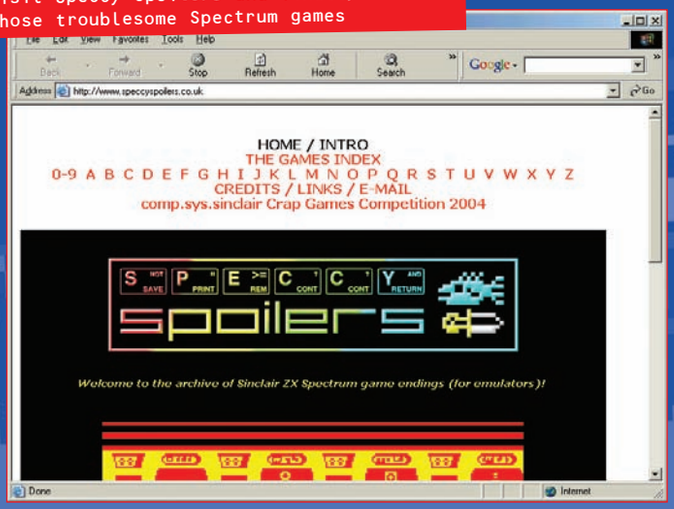
RG: So, why the obsession with Spectrum game endings?

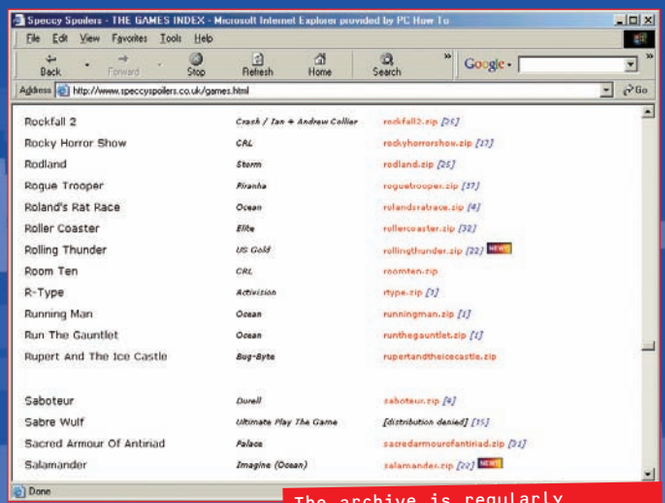
JL: My earliest memory of a great game ending was Alcatraz II, one of Microdeal's first releases for the Dragon 32. This was probably the first game that I 'hacked' to see the ending. That wasn't difficult because the game was written in BASIC. It had a great tune at the end and I realised that I'd never have heard it if I hadn't cheated, because the game was far too hard to complete. I've had a fascination with those elusive game endings ever since. Back in the 80s, there were tons of Spectrum games that I never managed to complete, even with pokes! I've always wondered what gems may be hidden away at the end of many of them and now, 20 years later, with the aid of emulators and the RZX file format, it's possible to reach the endings of most games and save a snapshot file of it for posterity.

RG: How many files do you have on your site?

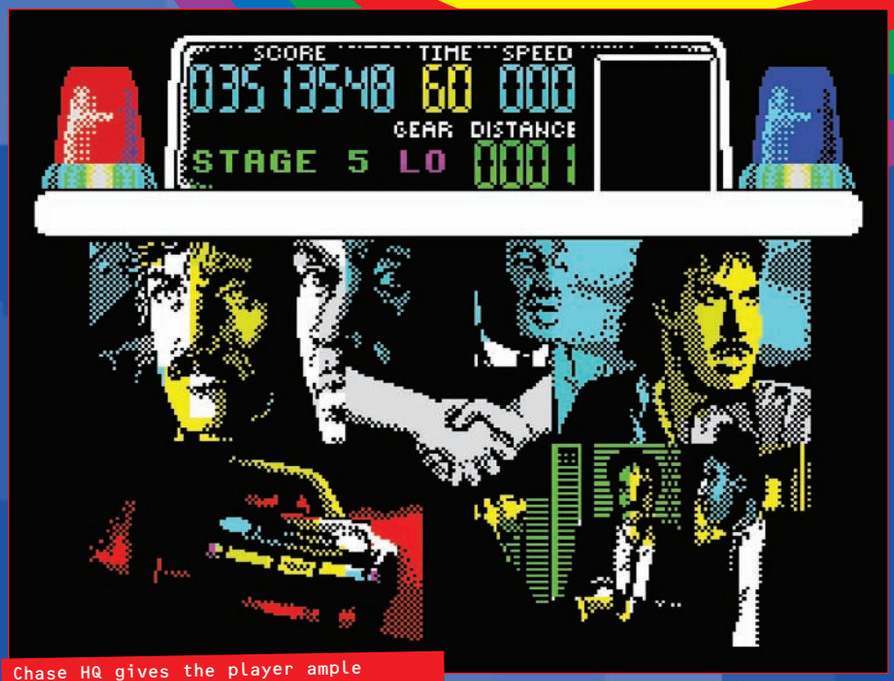
JL: At the time of writing, there were about 528 game endings archived at Speccy Spoilers. Over 50 people have contributed endings. I intend to add a lot more to the site when I can find the time, such as screenshots, information and descriptions of all the game endings. Unfortunately, because there are so many, it's going to be a fair while before I can write in detail about every game I currently have archived.

Visit Speccy Spoilers and finally finish those troublesome Spectrum games


HOME / INTRO
THE GAMES INDEX
0-9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
CREDITS / LINKS / E-MAIL
comp.sys.sinclair Crap Games Competition 2004
spoilers
Welcome to the archive of Sinclair ZX Spectrum game endings (for emulators)!

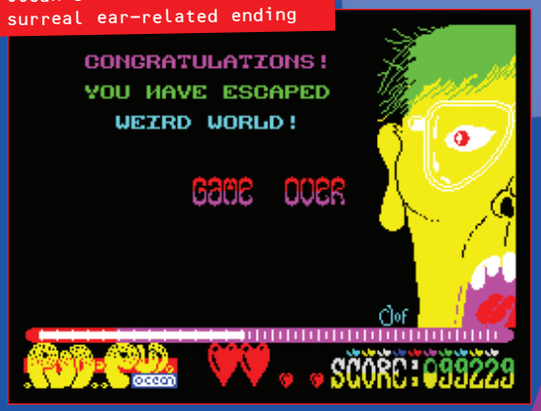


The archive is regularly updated with new game endings



Chase HQ gives the player ample reward with its drawn-out ending

Ocean's Pud Pud featured a surreal ear-related ending



RG: What are your views regarding the copyright debate plaguing the Spectrum scene?

JL: This issue has been discussed and argued at the comp.sys.sinclair newsgroup many times and the answers aren't clear. It's all in legal limbo. Obviously it's impossible to contact the author and publisher of every Spectrum game. For a start, a lot of the publishing companies from 20 years ago no longer exist and many of the programmers can't be tracked down easily either. So the best folk can do is follow the responsible policies of WoS, the hub of the Speccy community (**www.worldofspectrum.org**). It has made efforts to contact as many relevant parties as possible to ask permission for distribution rights – a massive task as you can imagine. The majority of programmers who responded gave permission – most were pleased that their old games were still being enjoyed around the world over 20 years later. The catch is, often these programmers aren't necessarily the copyright holders (although they deserve to be).

Many of the companies that are still around also gave permission. However, a small number of companies replied saying they would not grant distribution permission, most notably Ultimate Play The Game and Codemasters. So WoS has complied with their wishes and does not have games from these companies available to download from the site. Many other programmers/companies cannot be traced or have not replied, so their games are considered 'allowed', at least until the copyright holders come forward and confirm their wishes.

RG: Finally, what are your personal favourite Spectrum game endings?

JL: This is very subjective. I've tried to choose endings that I felt have some nice touches, rather then game endings that just seemed good because of the effort it took to get there!

Alien 8 gives you four lines of prose, your score/rating, followed by a simple animation of your droid getting a refreshing dip in oil! It's sweet. Other nice Ultimate endings include Pssst, Cookie and Knight Lore. Chase HQ has an excellent drawn-out ending with animations. It's obvious that considerable effort went into this one and you felt you were being duly rewarded for making it to the end.

Contact Sam Cruise had a strange and original ending. Sam explains that he has solved the case, but that the mob is now after him! You are then left to control Sam, but there is nowhere to hide – nothing can be done to prevent a mobster repeatedly grabbing Sam and throwing him off the top of a building until his money runs out and it's Game Over. Some people finished the game and didn't realise it, thinking they'd failed to do something. But it's actually just a cruel ending – a novel alternative to the usual 'Well done' message you'd expect.

Fighting Warrior gives the player a lovely, though brief, animated ending. Flunky has a cute ending after you grab the Queen's autograph. Flunky (or the Queen) scribbles "Smart eh?" into the book! Both Highway Encounter and Alien Encounter have long drawn out animated endings – the sort of 'game over' that everyone likes.

Jet Set Willy has an ending that no one could see without using the Software Projects 'official' poke fix. Willy is dragged conveyor belt-like to the toilet and is thrown in, his legs kicking out of the bowl. Fabulous stuff and probably the most famous Spectrum game ending there is. Finally, Pud Pud has a wonderful end animation showing a tiny Pud Pud falling out of the programmer's ear. So, it turns out the whole game was set in Joffa Smith's head.

Best endings

We pick out the very best endings from 1000s of Spectrum games

Barbarian

(Palace, 1987)

Having hacked his way through numerous opponents, our fearless hero is finally confronted by his lizard-faced nemesis. Barbarian's beloved Princess Mariana looks on as Drax meets his fate. He dodges fireballs and moves in for the kill...

Defeated by the athleticism of Barbarian, the darkly mysterious reptile starts feeling deflated and sinks to the ground, reduced to a pile of mush. Barbarian and Princess Mariana reunite and the scene is set for a romantic interlude.

The amply breasted maiden falls at the feet of our Barbarian as he prepares himself for the rewards that only female company can provide. As the screen fades we're left pondering what the future holds for the two lovebirds.

Ghostbusters

(Activision, 1986)

Having spent considerable time ridding the city of ghosts, the PK energy meter finally goes off the scale, plunging the city into chaos and forcing our heroes to dash to the temple of Zuul in their trap-laden car, ready for the showdown with the Marshmallow Man.

The Marshmallow Man blocks the entrance, preventing the team from accessing their goal. As their candy-like nemesis attempts to stomp our poltergeist-chasing duo, timing and a steady nerve allow them to sneak through the front door under his very nose.

The camera tracks our boys as they ascend the stairway to hell that leads to their final confrontation with Zuul. Taking care not to cross the streamers, it's only a matter of seconds before the evil is undone and the portal is closed forever. NYC is saved!

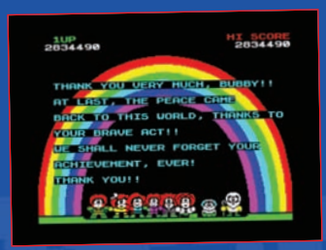
Rainbow Islands

(Ocean, 1990)

Bub has travelled across seven islands, battling enemies and climbing hundreds of platforms in a bid to defeat the evil Baron Von Blubba and rescue the kidnapped townsfolk. The final boss proves little trouble...

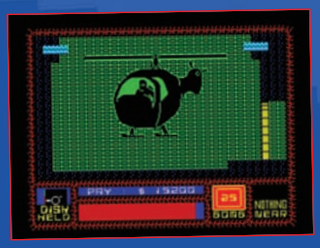
With the baddy despatched, a huge bonus of 100,000 points is rewarded for a job well done. There's no time to rest, however, because Bub is then whisked off to meet his rescued chums.

Reunited with the grateful islanders under a large colourful rainbow, our hero wins their undying gratitude for a job well done. It's colourful and it's cute – a worthy reward for all the platforms clambered up during Bub's adventure.



Saboteur

(Durrell Software, 1986)



Our balaclava-clad hero is nearing the end of his mission. He's successfully infiltrated the warehouse, retrieved the computer disk containing vital intelligence, planted the bomb and avoided the internal security grid and dog-walking guards.

His only problem now is time, or the lack of it. As the bomb continues its ominous countdown our hero seems doomed. A frantic race to the roof in search of a way out ensues, but even then rescue seems unlikely from such a remote spot.

Every good spy has a backup plan, though. Having reached the roof, our multi-talented hero jumps into the waiting helicopter and takes to the skies, leaving the bomb to do its deed, destroying any incriminating evidence left behind.

Max Headroom

(Quicksilva, 1986)

Computer-generated hero Max Headroom has been kidnapped by an evil TV tycoon. He's worth rescuing, though, not because of the quality of what was only ever an average game, but because of the rewards that await the determined player. You know a treat is in store when the ending comes only after an extra chunk of code is loaded into your faithful Spectrum. Delays aside, we're blessed with a full-on 30-second rant, with Max Headroom waxing lyrical about nothing in particular, congratulating the gamer on their efforts and passing on love to their families. All this is made possible thanks to Currah Microspeech hardware.

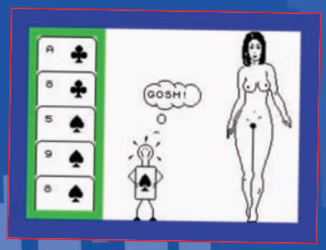
Worst endings

Where do we start? You'd need a huge doghouse to fit all the bad Spectrum game endings in, but these particularly poor examples deserve to be singled out

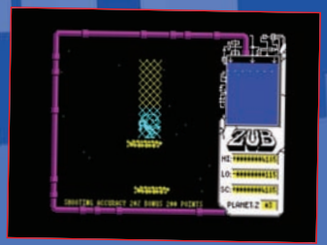
Animated Strip Poker (KnightSoft, 1985)

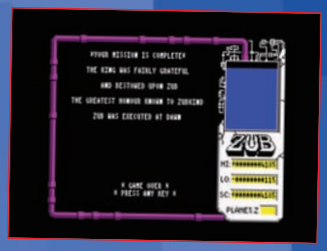
Meet Mindy, or is it Mandy? Somehow her name seems irrelevant at this stage as she prepares to 'reveal all' to the three people who bought the game and could be bothered to suffer its complete mediocrity long enough to reach this far.

If selling sex was the idea behind this venture, then perhaps Mandy should have had some friends to add a touch of variety to the proceedings. Even then, it would have been a case of quantity over quality. Not so much scraping the barrel as nestling underneath it.



Zub (Mastertronic, 1986)

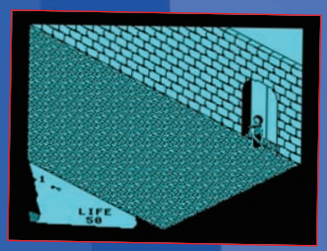




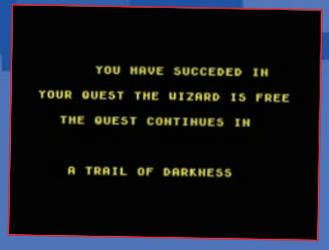
Mastertronic was renowned for its low-cost, high-quality games and Zub enhanced that reputation. A maddeningly addictive but tough outing, our alien friend found himself on a quest to retrieve the stolen green eyeball of Zub.

Having mastered the controls, battled the annoying enemies and climbed numerous platforms, a dramatic final battle prior to the recovery of the valued artefact is the least that could have been expected. Nice attempt at humour though.

Fairlight (The Edge Software, 1985)



Because the game set new standards in graphical flair and offered hours of exploration and fun, we can forgive the omission of sound, the dodgy controls, the frequent slowdown and the extreme difficulty level.



But what we can't accept is the complete lack of any effort to reward players for their hard work. Text-only game endings never were and never will be acceptable in any way, shape or form. Especially when they contain spelling mistakes.

Wriggler (Romantic Robot, 1985)

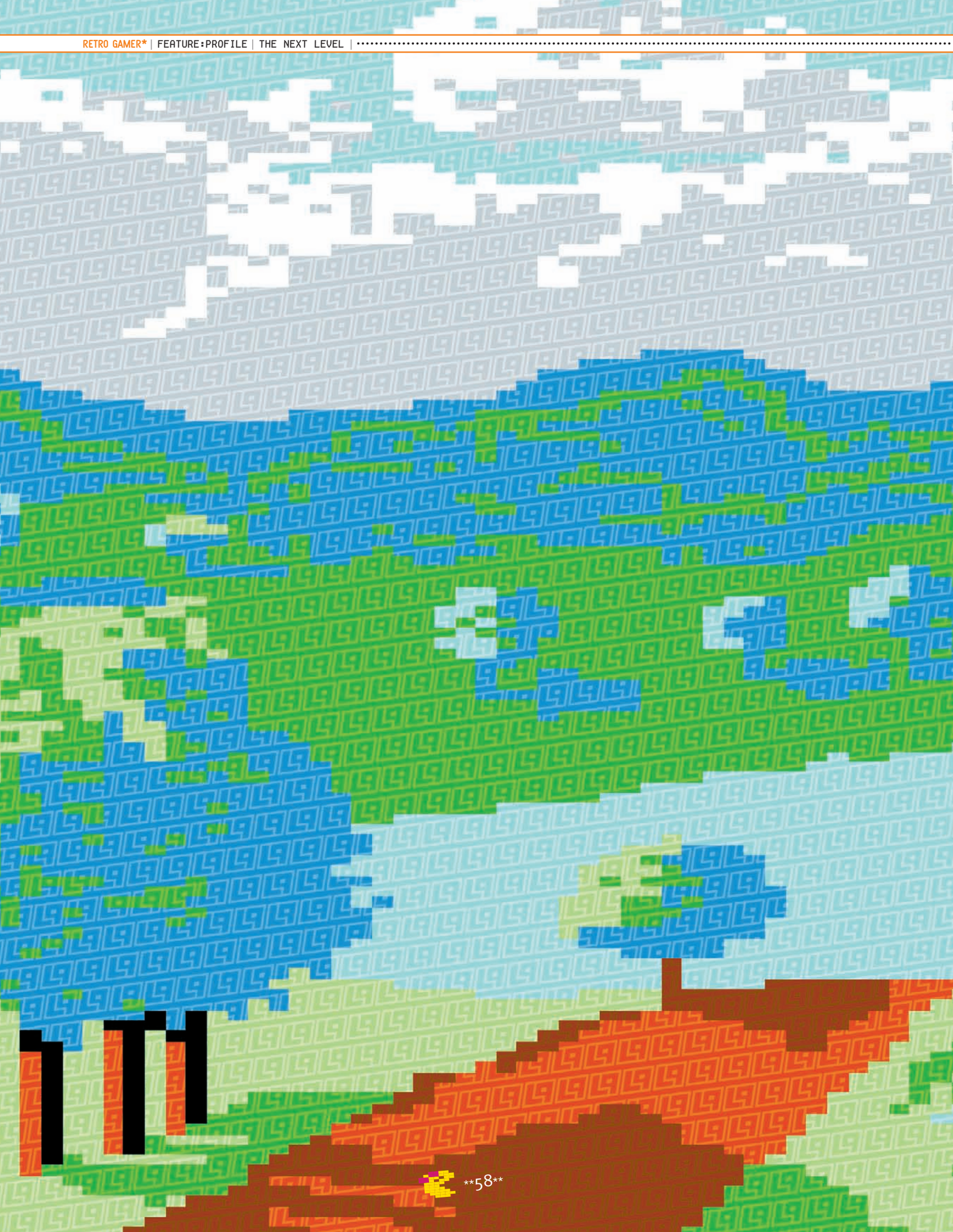
Having wriggled around 250 screens using parachutes and other handy devices to help you on your way, the least that could be expected for a race well won would be a triumphant fanfare at the finishing line and a bevy of beauties adorning the scenery.

Instead, we're left wondering what might have been as Romantic Robot commits the cardinal sin of relying on a text-only ending. Rumour has it that memory restrictions prevented anything more elaborate. Scant consolation though, after all that effort.

Garfield (The Edge Software, 1988)

Lazy oaf Garfield has a major problem: his girlfriend Arlene has been rounded up and sent to the pound and its up to our reluctant hero to rescue her. Cue laugh-a-minute adventuring courtesy of this gorgeous-looking cartoon tie-in.

Whilst the ending promises much with the reunion of Garfield and Arlene, once again we're unceremoniously presented with a text-only congratulations screen that sees Garfield dropping off for a power snooze as fast as the average player. All that effort for so little reward!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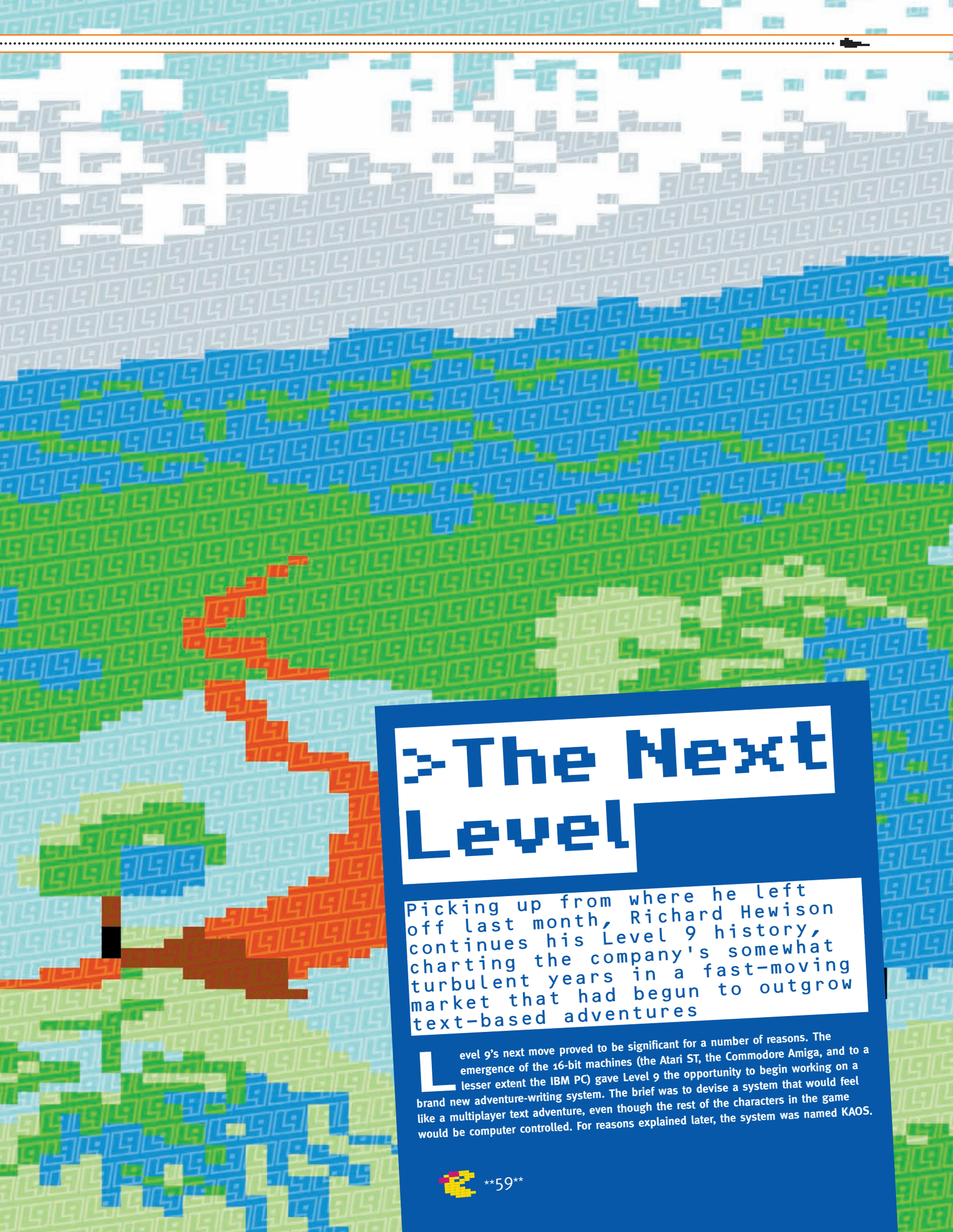


>The Next Level

Picking up from where he left off last month, Richard Hewison continues his Level 9 history, charting the company's somewhat turbulent years in a fast-moving market that had begun to outgrow text-based adventures

Level 9's next move proved to be significant for a number of reasons. The emergence of the 16-bit machines (the Atari ST, the Commodore Amiga, and to a lesser extent the IBM PC) gave Level 9 the opportunity to begin working on a brand new adventure-writing system. The brief was to devise a system that would feel like a multiplayer text adventure, even though the rest of the characters in the game would be computer controlled. For reasons explained later, the system was named KAOS.

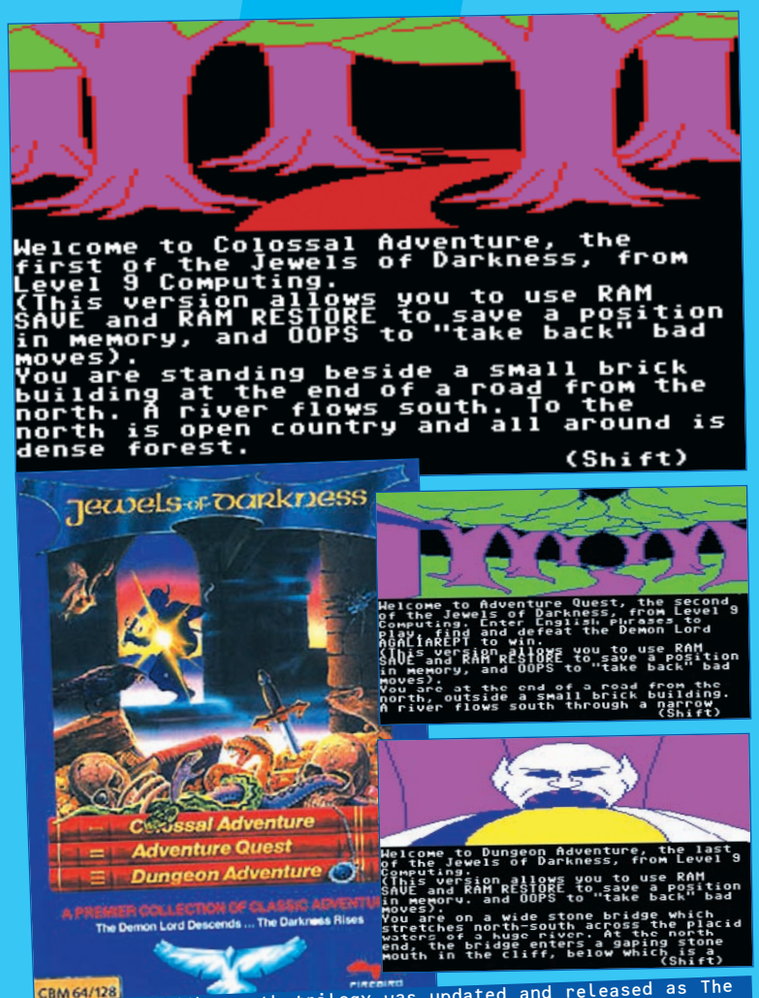
From Avalon to KAOS

The idea for KAOS originated from Level 9's aborted attempt at setting up a 'play by phone' and 'play by modem' multiplayer adventure game, codenamed Avalon. This game system was going to include up to a thousand computer players online at once (many more than MUD allowed) and was meant to respond much faster than MUD.

Avalon was going to be run behind the scenes by many networked Amigas, attached to a massive number of modems. It ultimately failed to appear for a number of reasons; there were concerns that the chatline regulations at the time would have prevented them from selling the 'play by phone' version. Secondly, the sheer cost of bulk buying modems to run the system was too high, as were the general development costs involved in writing the system. In hindsight, Level 9 has since admitted that, "If the Internet had been more developed at the time, we'd undoubtedly have gone ahead with it."

Level 9's next move was to sign a publishing deal with Telecomsoft and have its games published under the Rainbird label. This freed the Austins up (Margaret Austin in particular) from having to deal directly with the marketing, packaging and distribution of new titles. It also gave Level 9 a possible foothold into the potentially lucrative US market.

The deal with Telecomsoft gave Level 9 the chance to revisit its old 8-bit titles, spruce them up and release 16-bit versions at the same time. Graphics to every location were added, along with extra text and a few tweaks here and there. The Middle-earth trilogy (Colossal Adventure, Adventure Quest and Dungeon Adventure) was therefore updated and released as The Jewels of Darkness in 1986 on almost every conceivable home computer format going, including Spectrum, Amstrad CPC, Commodore 64, MSX, Atari 800, ST, Amiga, and IBM PC.


Welcome to Colossal Adventure, the first of the Jewels of Darkness, from Level 9 Computing.
(This version allows you to use RAM SAVE and RAM RESTORE to save a position in memory, and OOPS to "take back" bad moves).
You are standing beside a small brick building at the end of a road from the north. A river flows south. To the north is open country and all around is dense forest.
(Shift)
Jewels of Darkness
Colossal Adventure
Adventure Quest
Dungeon Adventure
A PREMIER COLLECTION OF CLASSIC ADVENTURE
The Demon Lord Descends ... The Darkness Rises
CBM 64/128
Welcome to Adventure Quest, the second of the Jewels of Darkness, from Level 9 Computing. Enter English phrases to play, find and defeat the Demon Lord AGALIAREPT to win.
(This version allows you to use RAM SAVE and RAM RESTORE to save a position in memory, and OOPS to "take back" bad moves).
You are at the end of a road from the north, outside a small brick building. A river flows south through a narrow
(Shift)
Welcome to Dungeon Adventure, the last of the Jewels of Darkness, from Level 9 Computing.
(This version allows you to use RAM SAVE and RAM RESTORE to save a position in memory, and OOPS to "take back" bad moves).
You are on a wide stone bridge which stretches north-south across the placid waters of a huge river. At the north end, the bridge enters a gaping stone mouth in the cliff, below which is a
(Shift)

Level 9's Middle-earth trilogy was updated and released as The Jewels of Darkness in 1986

SILICON DREAMS
Snowball
Return to Eden
The Worm in Paradise
Fantastic Flights Into Futuristic Worlds
CBM 64/128
RAINBIRD
INV
You own nothing.
You're wearing a hospital gown.
You notice a lever beside you
What now?
PULL LEVER
The lid above rises and a light comes on..
You are in a sponge-lined coffin. The only visible exit is out.
What now?
OUT
The coffin slides away
You are in a blue mortuary beside a smooth ceramic slab.
Lights twinkle beside a trapdoor on the ceiling. Exits lead north, up and down.
What now?
comes on..
You're in a sponge lined coffin. The only visible exit is out.
What now? OUT
The coffin slides away.
You're in a blue mortuary beside a smooth ceramic slab.
Lights twinkle beside a trapdoor on the ceiling. Exits lead north and up.
What now?

The original text-only version of Snowball on the Spectrum, and the updated release with location graphics

For the first time in a Level 9 game, a short story was included in the packaging. Rainbird hired Peter McBride to write The Darkness Rises, and this was the start of a working relationship that would continue between McBride and Level 9 over the next few years. He had previously written a few novellas for games of his own, including The Korth Trilogy (published by Penguin).

The two Peters (McBride and Austin) hit it off almost immediately, sharing a similar sense of humour. Peter McBride was given a copy of the finished game and the official clue sheet to enable him to at least explore each part and get a general feel for them. Level 9 then explained the opening scenario that his novella would have to lead directly into, and the rest was left up to him. The finished novella was spread over 43 pages, broken up into 20 small chapters.

Next up for the makeover treatment were Snowball, Return to Eden and The Worm in Paradise, published together by Rainbird as Silicon Dreams (although the three games were originally known as the Silicon Dream trilogy, minus the 's'). As before, the packaging included a novella written by Peter McBride, called Eden Song.

Orchestrated plans

With so many monsters getting the raw end of the deal in adventures, Level 9 decided to let them have their revenge, and from this basic idea was born the first of its new adventure games. Knight Orc cast the player as an oppressed Orc called Gindleguts, who lived in a magical world he had to escape from.

The game was written using Level 9's new KAOS system (which was a jumbled acronym for the Knight Orc Adventure System). Whilst the Austins initially wrote the system for the Atari ST and Commodore Amiga, they also hired another programmer to write the Apple Macintosh version. This job went to John Jones-Steele, a veteran coder who had run his own software company (Abersoft) and who had previously collaborated on writing two 8-bit adventures for Melbourne House (Classic Adventure and Mordon's Quest). Most of the correspondence between Level 9 and John Jones-Steele was made by telephone, as he remained in Wales and programmed from his back bedroom at home. The KAOS system itself was written in C, and although it was a little unwieldy, it was a powerful system compared to others available at the time.

Pete Austin did a sizeable amount of research into making the magic system and other elements of folklore consistent in Knight Orc. A deliberate decision was made not to mix and match lore and myths from different countries, so they focused almost exclusively on British mythology for inspiration.

Despite the research into mythology, Level 9 still managed to get a Tolkien reference into the game, thanks to Knight Orc's opening paragraph: "In a hole in a mound there lived an Orc. Not a

KNIGHT ORC
Loosed Orc
A Kind of Magic
Hordes of the Mountain King
A FANTASY ADVENTURE IN THREE PARTS
IBM/TANDY PC
RAINBIRD
says, spitting contemptuously, "I can't think why the orcs chose you as their champion". Lowering his visor, he rides out into the full sunlight.
One of the robed figures hauls you back upright, jeering "Go on, Sir Orc, you're next" and gives your horse a prod with his spear, laughing as the frightened beast rears and bolts.
What now?
Compare the 16-bit digitised graphics with the 8-bit interpreted versions

clear, dry sandy hole with only spiders to catch and eat, nor yet a comfortable Hobbit-hole. It was an Orc-hole, and that means a dirty, clammy, wet hole filled with bits of worms and a putrid smell." Similarities between this and the opening chapter of The Hobbit were entirely deliberate.

For the first time in a Level 9 adventure, the game was split into three separate parts. The first part (which was really an introduction to the intricacies of the new system) was called Loosed Orc. Part two was A Kind of Magic, and the final segment was entitled Hordes of the Mountain King. In the first part, Grindleguts had to collect enough rope to be able to swing across a chasm. The rest of the game had the player recruiting characters and collecting spells. The very end had the Orc escaping through the mysterious main door and out into the real world. Moving between parts two and three of Knight Orc was uniquely devised. By wearing a visor, the player moved into part three, which revealed that Grindleguts was in a contemporary yet futuristic world. There were objects he could only take and puzzles that he could only solve by being in part three. By wearing the visor again he would re-enter the fantasy world of part two.

KNIGHT ORC
Welcome to Knight Orc, copyright (c) 1987 from Level 9 Computing and Rainbird. This version allows you to use RAM SAVE and RAM RESTORE to save a position in memory, and UNDO to take back bad moves).
Some time later, you awake, bruised and battered, but you must still be alive!
You are in a huge pile of garbage, with the other rubbish thrown away after the tournament. Exits lead downwards and outside. You can see a putty knife and (Shirt)
Exits lead north, east, south and west.
You go north and are on a dismal fairground in a rowan coppice. In the distance is a castle. Exits lead in all directions and inside. You can see a flagpole.
Knight Orc was the first original Level 9 game to be released on Telecomsoft's Rainbird label

Only veteran adventures would have recognised the link between Knight Orc and the earlier Level 9 games. At the end of Knight Orc, you were told that you were no longer a mere Orc slave in Reveline's life-size adventure game. Reveline's dreams (and the visors) were an integral part of the Silicon Dream trilogy, but the link wasn't obvious.

The short story included with the game (The Sign of the Orc) was written once again by Peter McBride, who had by then become a good friend of Level 9. He also helped 'polish' the descriptive text and the game's responses, and even persuaded the Austins to move from their current base in Basingstoke, down to Southampton (where Mike Austin had been at University studying Engineering, and where Peter McBride also happened to live).

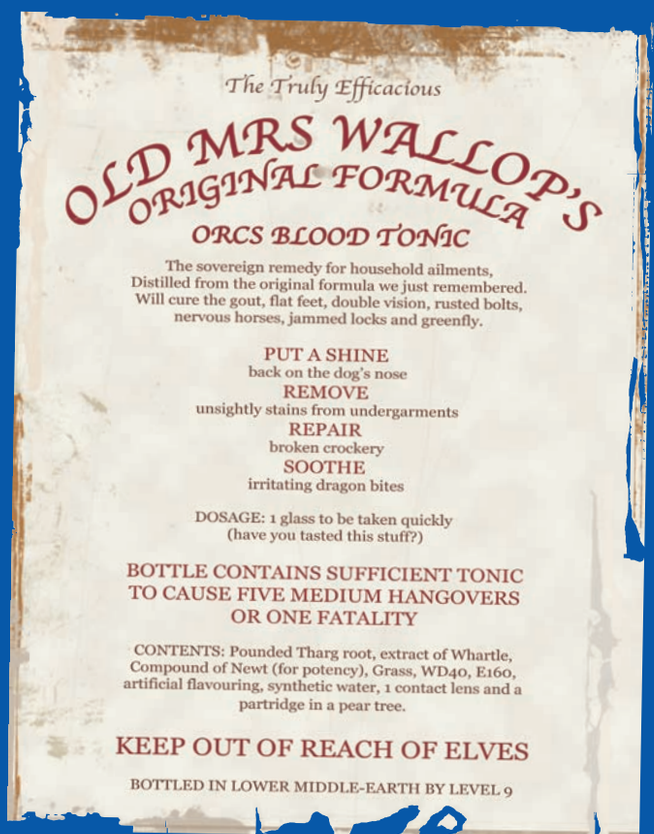
The location graphics in the 16-bit versions of the game were digitised paintings by Godfrey Dowson, whilst some of the 8-bit disk versions contained interpreted versions of the same artwork. The 8-bit cassette versions ended up as text-only games, which must have been a technical necessity but was almost certainly commercial suicide. Unfortunately, even on the 16-bit versions, not only could they no longer have a graphic for every location, but the quality of the digitised images was fairly rough.

By the time Knight Orc was nearing completion, cracks were starting to appear in the relationship between Level 9 and Rainbird. Grumbles from the publisher's side on the number of bugs being found during the development of Knight Orc were apparently met with discontent from the other side regarding the perceived lack of effort that went into publicising Level 9's games. Level 9 felt that the change in regime at Rainbird (after Tony Rainbird's departure) had made the publisher less favourable towards adventure titles. These disagreements eventually ended with the two companies parting ways.

Knight Orc was released in July 1987 and was generally well received by the press, but sales

Wined & dined

To mark the official launch of Knight Orc, Rainbird organised a party for the computer press. This included handing out copies of the game and bottles of red wine from an interesting vintage!


The Truly Efficacious
OLD MRS WALLOP'S ORIGINAL FORMULA
ORCS BLOOD TONIC
The sovereign remedy for household ailments,
Distilled from the original formula we just remembered.
Will cure the gout, flat feet, double vision, rusted bolts,
nervous horses, jammed locks and greenfly.
PUT A SHINE
back on the dog's nose
REMOVE
unsightly stains from undergarments
REPAIR
broken crockery
SOOTHE
irritating dragon bites
DOSAGE: 1 glass to be taken quickly
(have you tasted this stuff?)
BOTTLE CONTAINS SUFFICIENT TONIC
TO CAUSE FIVE MEDIUM HANGOVERS
OR ONE FATALITY
CONTENTS: Pounded Tharg root, extract of Whartle,
Compound of Newt (for potency), Grass, WD40, E160,
artificial flavouring, synthetic water, 1 contact lens and a
partridge in a pear tree.
KEEP OUT OF REACH OF ELVES
BOTTLED IN LOWER MIDDLE-EARTH BY LEVEL 9

were much less than had been hoped for. Many found the game to be lacking the atmosphere and the challenging puzzles of the earlier Level 9 adventures. Once you had worked out that many of the puzzles relied on multiple characters simultaneously performing a task, they became easily solved.

What gnow?

Having severed the connection with Rainbird, Level 9 reverted back to publishing its next release on its own. Gnome Ranger made its first public appearance at the 1987 Personal Computer World Show, where players could buy it directly from Level 9's stand. With the descriptive text and journal written by Peter McBride, the game was its first real stab at a humorous adventure. It was based around the exploits of Ingrid, the Sloane Gnome. She was banished into the wilderness by her exasperated family and had to find her way home.

The humour was a nice change, but it quickly irked many players. Any word that began with the letter 'n' had a 'g' added to the front, so the prompt became 'What gnow?'. Unfortunately, recruiting characters and performing synchronised actions with them once again dominated the game design.

As with Knight Orc, Gnome Ranger was split into three separate adventures which had to be played in order. The graphics on the 16-bit versions were once again digitised paintings, but the quality of the digitised images had thankfully improved a little since Knight Orc. The 8-bit cassette versions were again reduced to text-only affairs.

There were rumours that a survival-style adventure was due next from Level 9, with locations and puzzles based on places and obstacles performed for real by Pete Austin in the English countryside, but this germ of an idea apparently didn't progress off the drawing board. Instead, Level 9's next step was to sign up with Mandarin, an affiliate label of Database Publications. Level 9 delivered two products for Mandarin in 1988. The first release was its latest updated trilogy of old games. Originally due to be published by Rainbird, Time & Magik contained Lords of Time, Red Moon, and The Price of Magik, complete with digitised Godfrey Dowson pictures and all the usual trimmings, including another novella by Peter McBride.

The second game for Mandarin was Lancelot. Designed by Christina Erskin, the well-researched title was based on the Arthurian legend of Lancelot and his quest for the Holy Grail. As with every other KAOS game, it was split into three separate parts. The player could begin in any part, but the only way to attain a full score was to play it all the way through, from start to finish. As the player progressed, they encountered King Arthur, Guinevere, and Sir Galahad, rescued or fought with various other knights, thwarted a demon, defeated a pair of dragons, and journeyed to many castles. Points were rewarded for chivalrous acts, and the player had to amass enough points before they were finally able to attain the Holy Grail. The player could go through the first two parts of the adventure being less than chivalrous, reach the last part of the game, only to be deemed unworthy of the Grail at the very end.

The graphics in Lancelot were machine-drawn renditions (with the credit going to four different graphic artists) as opposed to digitised paintings, but they didn't compare favourably to the quality of drawn graphics found in the Magnetic Scrolls adventures.

GNOME RANGER
ground, yet the countryside was almost uninhabited and the air was strangely silent. The loudest sound was rushing water, far to the east. Exits led gnorth, gnortheast, east, gnorthwest and inside through a door. Ingrid could see some wooden shutters and a door.
What gnow?
Level 9's next release was the humorous Gnome Ranger. Ingrid would return in a sequel

LANCELOT
Lancelot was in Vagon castle where he had spent the night, bedded on rough straw as befits one who would follow Our Lord. Lancelot could see an altar. Only the altar had been dressed with colour and richness.
What now?
Play Lancelot and you had a chance of winning a golden goblet worth five grand!

Lancelot had an additional incentive. A prize was on offer to the first person to solve the game. A number of words throughout the game were displayed in capital letters, and the winner had to write down each word and submit them when they entered the competition. The prize was a golden grail goblet worth £5,000.

By now, the KAOS system was clearly showing its limitations. Although it did try and generate a world full of seemingly independent characters, every new game played in the same way as the previous one. Puzzles were unimaginative and easily solved if you could work your way around some of the bugs. From this player's perspective, the KAOS system seemed to impose a straightjacket on the game design.

Gnome Ranger 2: Ingrid's Back! reverted to the more familiar L9 packaging. As before, most versions (except for 8-bit on cassette) had machine-drawn graphics for key locations and were divided into three parts: Little Moaning, Steamroller at Dawn and Ridley's End. The first part of the game required the player to get local residents to sign a petition against local developer, Jasper Quickbuck. The second part had the player stealing some plans and stopping a steamroller from flattening the farm. The final part involved infiltrating Jasper's Manor and discovering what his ultimate plans were.

Ingrid's Back! and Scapeghost were Level 9's last text-based adventure games

1989 was Level 9's swansong as far as adventure releases were concerned. Prior to the release of Gnome Ranger 2 in 1988, it had announced that Scapeghost (which had the working title of 'Spook') was going to be the last Level 9 adventure. Although it blamed poor sales on piracy, the change in the demand for text adventures in general must have also been a deciding factor. Scapeghost told the tale of a murdered detective who had three nights to clear his name and get revenge on the gangsters who killed him.

It's HUGE!

By 1988, so-called graphic adventures like Sierra's Kings Quest series had all but taken over the adventure market. Typing in commands was considered old hat, and point-and-click adventures were seen as the way forward. Faced with commercial extinction, Level 9 formulated a radical plan to move over to graphical strategy games. This concept saw the birth of Level 9's HUGE system (wHoley Universal Graphic Environment), but it took almost two years before a publisher (Mirrorsoft, via its PSS label) signed up the first HUGE game, Champion of the Raj, for the Atari ST, Commodore Amiga and IBM PC.

For Raj, Pete Austin researched India in the early 1800s. The game acted out the rivalry between the British, the French, the Maharajas, the Moguls, and the Ghurkhas as they each tried to claim India for themselves. The player could choose which side they wished to

While ambitious, Champion of the Raj failed to deliver the hit that Level 9 desperately needed

play. Each of the competitors needed to raise cash and amass an army, and they each had a different approach. The game could also handle multiple players, taking turns.

Raj was ambitious and diligently researched. Unfortunately, Level 9's attempt at producing a mix of strategy and arcade fell between two stools and failed to satisfy either genre. It was also debatable if people wanted to play a game based in 19th Century India. Some magazine reviews were particularly cruel about the game's deficiencies, and it didn't help that some versions were not as fast or as smooth as they could have been.

As Champion of the Raj was being finished, Level 9 started touting its HUGE system to US publisher Cinemaware, famous for their 1Mb-only Amiga games, including Rocket Ranger, the TV Sports series, and Wings. As a result of their endeavours, the Austins were commissioned to write HUGE versions of Cinemaware's Amiga game It Came From the Desert, for the IBM PC and Atari ST.

Level 9 managed to complete both versions of It... by the summer of 1991, but Cinemaware ran into financial trouble and went out of business soon afterwards. This was a major disaster for Level 9, which was owed a "huge (no pun intended) amount of money" for the work. It had also started writing a new HUGE game for Cinemaware, called Grange Murders. When Cinemaware went bust, this unfinished game became tied up in the assets of the company and never saw the light of day.

At the same time as Raj and It... were being developed, Level 9 was also working for Ocean Software on another HUGE game entitled The Legend of Billy the Kid. The game gave the player a choice of playing either as the eponymous William H. Bonney, alias Billy the Kid, or Pat Garrett, the Sheriff tasked with hunting Billy down. A two-player option was available, but it meant linking two PCs together with a null modem cable.

No doubt a lot of research went into the real story of William H. Bonney, so that the game could be as authentic to the historical events as possible. Even the title screen had a good likeness to the surviving photos of the real Billy the Kid. But Ocean decided to cancel the game, despite having advertised it in a number of magazines. A PC version of Billy the Kid (in German) did surface on the Internet a few years ago, but where it originated from is anyone's guess.

Ocean never gave Level 9 an official reason for why the game was dropped, and the Austins had neither the time nor the resources to challenge the decision once Cinemaware went under. As a result, they were forced (with some reluctance) to close the business down.

The adventure ends

The decision to finish must have been difficult. The death of the text adventure and the rise of the console market, along with the £100,000 owed by Cinemaware, dealt the fatal blows. The attempt to move the company in a different direction with the HUGE system was brave, but fully graphical strategy games with animation and arcade sections weren't Level 9's forte. As a result, a number of programmers and animators who had been working on the HUGE games were made redundant. After almost a decade of creating successful adventure games, Level 9 was no more.

Despite all of this, Level 9 is still looked upon with massive affection by many text-adventure fans. Thanks to the emulation scene, its games can still be enjoyed on a whole multitude of different computing platforms. Better still, you can purchase the original cassette and disk versions from auction sites like eBay, and play the games on their intended platforms – just like Pete Austin first played Adventure on a mainframe some 20 years ago.

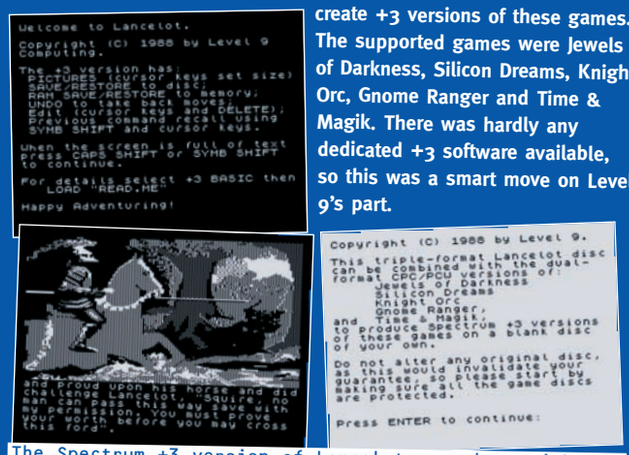
Thanks to Peter McBride, John Jones-Steele and Mike Austin for their help in researching this article. RG*

Level 9's last published work was ST and PC ports of It Came From the Desert

>Added extras

Always innovating, Level 9 made sure that its game fully exploited the capabilities of your machine. Take Lancelot on the Spectrum for example. The game ran perfectly well on the 48Kb model, but extra features were available for those with 128Kb machines. Text descriptions were more detailed for starters, and it was possible to save your position to tape and memory.

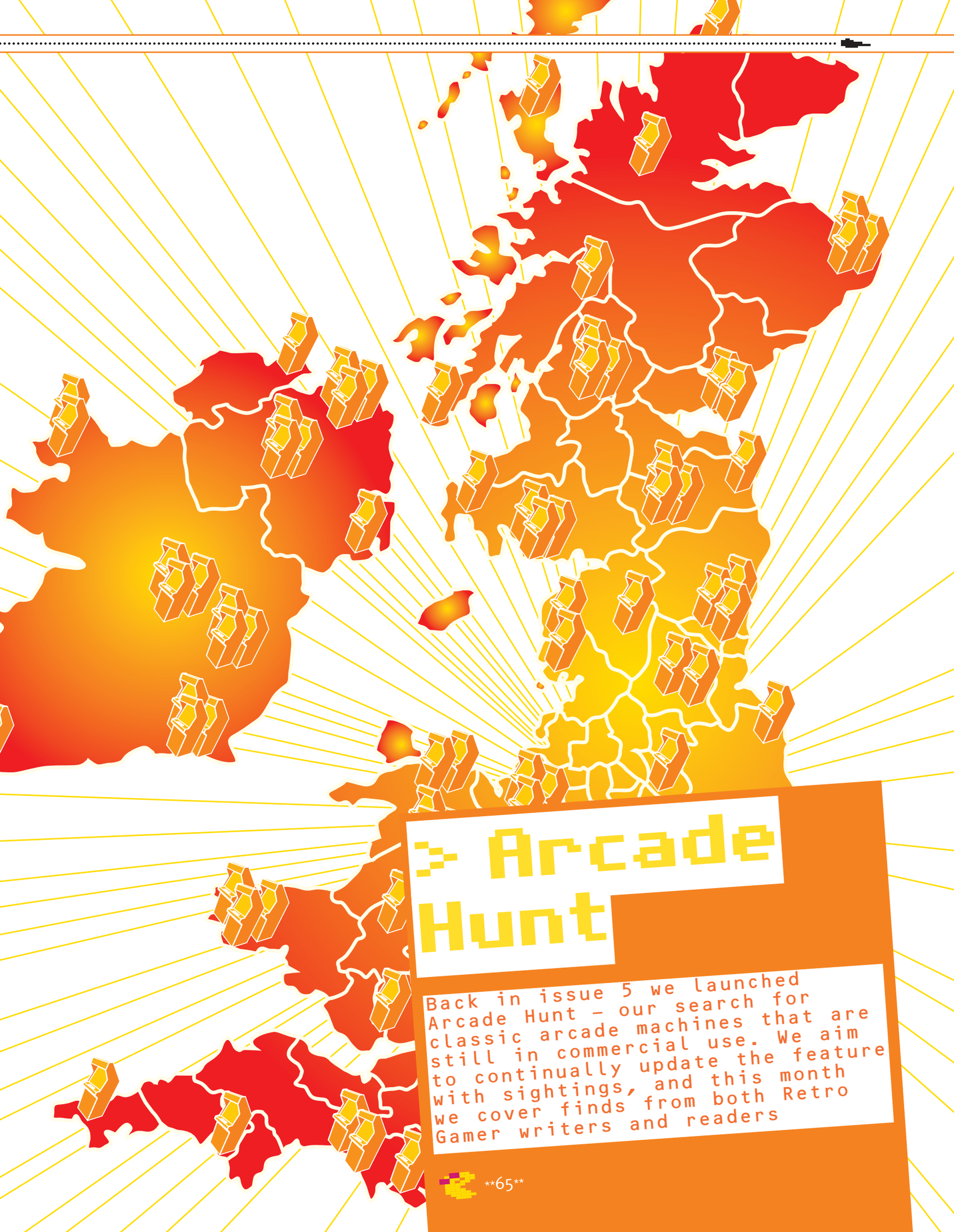
For those lucky enough to own a Spectrum +3 – with its fancy built-in disk drive – you could also display location graphics. Once the game had loaded, you simply flipped the disk over and the pictures would be loaded directly from the disk. And there was more, because you could combine the Lancelot disk with the Amstrad CPC/PCW disk versions of other Level 9 adventures and create +3 versions of these games. The supported games were Jewels of Darkness, Silicon Dreams, Knight Orc, Gnome Ranger and Time & Magik. There was hardly any dedicated +3 software available, so this was a smart move on Level 9's part.


Welcome to Lancelot.
Copyright (C) 1988 by Level 9 Computing.
The +3 version has:
PICTURES (cursor keys set size)
SAVE/RESTORE to disc;
RAM SAVE/RESTORE to memory;
UNDO to take back moves;
Edit (cursor keys and DELETE);
Previous command recall using SYMB SHIFT and cursor keys.
When the screen is full of text press CAPS SHIFT or SYMB SHIFT to continue.
For details select +3 BASIC then LOAD "READ.ME"
Happy Adventuring!
Copyright (C) 1988 by Level 9.
This triple-format Lancelot disc can be combined with the dual-format CPC/PCW versions of:
Jewels of Darkness
Silicon Dreams
Knight Orc
Gnome Ranger;
and Time & Magik;
to produce Spectrum +3 versions of these games on a blank disc of your own.
Do not alter any original disc, as this would invalidate your guarantee. So please start by making sure all the game discs are protected.
Press ENTER to continue:

The Spectrum +3 version of Lancelot, complete with pictures and other unique features

The Billy the Kid game was unceremoniously dropped by Ocean just prior to release

eMag



> Arcade Hunt

Back in issue 5 we launched Arcade Hunt – our search for classic arcade machines that are still in commercial use. We aim to continually update the feature with sightings, and this month we cover finds from both Retro Gamer writers and readers

Southport

Martyn Carroll takes a trip to the 'Paris of the North'

The Paris of the North? Well, that's what the Visit Southport website calls it. It's also referred to as the 'Jewel of the North West'! I simply remember it from my youth as a town packed with seafront arcades housing row upon row of classic games. Following my recent trip to Rhyl, I set off for Southport with high expectations. My hopes were soon dashed though...

I began the search at Pleasureland. This theme park is a bit like Blackpool's Pleasure Beach, only with decidedly less pleasure. The Casablanca arcade was full of all the usual suspects from Sega and Namco: Manx TT SuperBike, Sega Rally 2, House of the Dead 2, 18 Wheeler, Ferrari F355, Scud Race, Time Crisis 2 and Crisis Zone. They're all a lot of fun to play, but you've seen the same machines a million times before. It was the same story over in the Palace Arcade (which is also part of Pleasureland), although I was surprised to see the three-monitor version of Ridge Racer. Sadly, the right-hand monitor was on the blink, but it was still fun to play at 50p a spin.

With Pleasureland conquered, I travelled down the seafront to the town centre. There were several arcades on Nevill Street, but nearly everyone was full of fruit machines. Silcock's Amusements, however, was home to a number a newer machines, including the star of the show, OutRun 2. Best of all, it was just 50p a play. After spending a few quid on OutRun 2, I was on my way home, disappointed at the lack of retro arcade action in Southport. Perhaps it was time to widen the net...

These three pictures tell the whole story

Tramore

Ant Cooke takes a trip across the Irish Sea

After reading the previous Arcade Hunt article, I was inspired to find some more classic arcade machines. After all, I know several places that have old machines, such as Tramore, in Ireland. It's a relatively small beach town, with a short promenade stashed with old games, usually tucked away in the corner.

Before OutRun 2 there was OutRunners

The first arcade, the Prom Arcade, had nothing retro at all. The nameless arcade next to it, however, housed Alien 3: The Gun, and a superb example of OutRunners, complete with music buttons and LCD mini-display. The only problem with the machine was the lack of music, which was very disappointing. Still, the actual game itself had none of the real problems that often plague racing games, like a dodgy steering wheel or broken pedals. Also in the arcade was Point Blank, albeit with a discoloured, fuzzy monitor, and Suzuka 8 Hours, a machine that is in nearly every arcade in existence.

Another nameless arcade had a fair few classic games, including Street Fighter II: Championship Edition, which suffered slight graphical glitches, and a NeoGeo machine with Metal Slug, Super Sidekicks and Double Dragon. The only problem was that none of the buttons on player one's side would work! To even begin to play a game of Metal Slug required you to kill off player one and continue as player two! Also in this arcade, in better condition, was Stadium Cross (or Super Motocross Racing Battle, if you believed the marquee).

By far the largest arcade in Tramore is Freddies, established some time in the 50s. Along with a lot of modern games, like House of the Dead 3 and nearly the entire Silent Scope series, I found an Operation Thunderbolt machine here, in excellent condition, along with Sega's Title Fight and another Alien 3: The Gun. Around the back, amongst the unused games, was an F1 Exhaust Note machine, which was once played here – it was replaced by Battle Gear 3, I believe. Namco's Shoot Away 2 was also there, which was included as a bonus mini-game in the PS2 version of Time Crisis 2.

However, my personal favourite arcade is Piper's, right next door to Freddies. While it mainly consisted of poker machines, there were four undedicated, but still excellent machines – Metal Slug 2 (on which I currently hold the top score!), Wonder Boy, Puzzle Bobble and Bobble Bobble, a bootleg version of Bubble Bobble, that's unfortunately permanently stuck in Super mode, making the game very difficult. All these games were in

The machine on the left was acting as a plant stand!

excellent condition, with minimal screen burn. There were only slight problems on Wonder Boy and Bobble Bobble: the very top of the screen was flipped, for some reason, which was more of a problem in Bobble Bobble than Wonder Boy.

Finally, on the Fitz-Maurice Caravan site, there was a game's room with Special Criminal Investigation (Chase HQ 2) and the rare Heated Barrel by Tad Corporation. SCI in particular was in very good condition as it was a dedicated machine. This small hut also hosted one of the most bizarre machines I've ever seen: it looked like a Nintendo Super System machine and had the Nintendo Super System marquee, but it also had lightguns and was really Police Trainer in disguise!

As you can see, most of the machines in Tramore are in pretty good condition, and while it doesn't have too many classics, it does have some hard-to-find games, like OutRunners and Heated Barrel, along with some other fun games.

Two-player racing action...

Matlock Bath

Paul Drury chases after Pac-Man in Derbyshire

Namco's Pac-Man has been a permanent fixture in Harry Hall's Amusements in Matlock Bath, Derbyshire, since it arrived in 1980. Over the decades, a new screen and joystick have been fitted and the mechanical coin mechanism has been replaced with an electronic one (which provides a reasonable two credits for 50p), but the board and cabinet are original and in remarkably good condition.

The Hall family has been involved in fairground attractions since the early 1800s and Harry opened this arcade in 1963. "Back then it was mainly mechanical fruit machines and penny pushers, but we did get a Pong machine in 1972," explained the current owner Enoch Hall, son of Harry. "In the early Eighties, two thirds of the place was arcade games – Defender, Phoenix, Space Invaders... we had them all. Now that's the only one left."

I couldn't resist asking Enoch the obvious question: "Can I buy it, please?" He smiled ruefully and shook his head. "I've had dozens of people ask me that over the years, and some have offered me serious money. But no. Call me sentimental, but I'd never sell it."

The original Pac-Man dwarfed by rubbish fruit machines

From the forum

Arcade Hunt spills out onto the Retro Gamer Web forum...

Poster: bobjbob2
Date: 07 July 2004
I was down in Skegness last month. While it has nowhere near the amount of arcade games it used to have, there are still a few dotted about in the various arcades along the sea front. For one thing if you like The Simpsons there are quite a few about including at least two sit-down versions. I also saw a couple of Street Fighter games.

Poster: tuffburner
Date: 09 July 2004
Went to South Shore holiday camp in Bridlington a few weeks ago and in the arcade there was an Operation Thunderbolt game (with the uzi) and a few other Jamma cabs, plus a NeoGeo machine running Metal Slug. I always look for these machines as they are very hard to find in arcades today, so I spent a few quid that night!

Poster: Stainboy
Date: 09 July 2004
I went into Southend yesterday for my own little Arcade Hunt. In an arcade called Happidrome, lined up at the back, were Ms Pac-Man (actually in a Pac-Man cab), Space Invaders, and Track & Field. They were all in pretty good condition and were 20p a go. Track & Field was more worse for wear but it looked better for it. God, they were loud when I played on them, and the sound stayed on after!

Poster: cronosoft.co.uk
Date: 12 July 2004
I live 18 miles from Skegness, so get down there every week or so. Unfortunately, it's nowhere near as good as a couple of years ago. While classic old machines were hard to find, the Tower Cinema/Arcade had a retro section at the back, where you could find an original Space Invaders, Frogger, and the odd other old title. Another arcade also had an upstairs 10p section, with games like Nemesis and Thunderblade.

I just don't find grab (or rather 'pick up and drop') toy machines and endless Dance Revolution games (populated by spotty 14-year-old girls from Rotherham wearing track suits) much fun – although those new Namco Pac-Man 2p coin push things are strangely addictive.

Poster: Richard Bayliss
Date: 14 July 2004
When I was on holiday recently in Devon for two weeks, I went to the Paignton pier and there was an arcade machine crammed with retro-arcade classics, like Space Invaders, Pac-Man, Galaxians etc. However, there was a slight catch. Although the games looked original, they were actually fake – mainly because the title screen of a few had a modern logo. Space Invaders was called Invaders. Also, when you inserted 20p, you only got to play one game of your

Pendine

Alan Martin stumbles upon some arcades in South Wales

While holidaying with the family in Camarthenshire, I put the bucket and spade away for a day and went on my own little arcade hunt. I checked a few holiday parks but the arcades were just full of recent machines. The oldest was probably Daytona USA. It really wasn't worth the bother it took to blag my way into them (these arcades are for residents, after all).

But while driving through Pendine – a small resort near Saundersfoot – I noticed a rather shabby-looking building with the word 'Amusements' scrawled on the side (painted by hand, on closer inspection); it looked like a toilet block, to be honest! With the exception of a few battered old bandits, I went inside and was surprised to find a small number of classic machines, all at 30p a play. First up was the stand-up version of OutRun, which played fine except for some weird graphical glitches. Next to it was the two-player sit-down version of

A distant descendant of Pole Position

Namco's Final Lap 2. There was also Sega's Alien 3: The Gun and Turf Masters on the NeoGeo, but the highlight was the sit-down version of Sega's G-Loc. I dropped a quid in and was pleased to find it in good working order. G-Loc is still a lot of fun to play, especially the sit-down model – although the wild R360 version is obviously the best way to play it.

Not a big find, but a good one nonetheless. To finish off a great holiday, I spent an evening in the Saundersfoot Sports and Social Club, and was delighted to discover Namco's Rave Racer in the bar. This was particularly cool, because it's the only game in the Ridge Racer series not to be converted to home consoles. It certainly kept me busy while the wife was playing bingo in the other room!

choice. So it was only Space Invaders that I played, being a fan of cult classics.

Poster: RetroRik
Date: 17 July 2004
Just back from Great Yarmouth... It's bad news – there wasn't a single arcade that had anything older than Daytona USA and Sega Rally. They did have the 20th Anniversary edition of Dragons Lair... suspect it's not a laserdisc inside but a CD or DVD. Strangely enough, at the bottom of the main shopping street there was a bargain shop that basically sold tat. In one corner it had a number of oldies like Robocop, Pole Position, Operation Wolf, Operation Thunderbolt, Galaga, Terminator 2 and Ms Pac-Man. I nearly asked the guy if Pole Position was for sale but the other half was with me! Amazing where you find these machines now.

Poster: EnglishRob
Date: 30 July 2004
I was down in Teignmouth in Devon earlier this week visiting the relatives. When I was younger I used to be a regular visitor of Booths Amusements down there. Things have changed considerably these past few years. Now there are mainly fruit machines, 2p pushing machines and kids novelty rides. What arcade machines they did have there I could count on one hand. The oldest one there was Super Hang-On, which I think has been there since the game was released. I was disappointed to see that they had got rid of the OutRun sit-down machine, which was one of my favourites (possibly my all-time favourite arcade game).

Prepare for take off – Sega's G-Loc still thrills after all this time

Ban hunting?

We've received a letter that may cast doubt over the future of this very feature...

Dear Retro Gamer.

I was interested to read the article called Arcade Hunt in issue 5. It makes very interesting reading that there are still a few retro arcade machines out there in small arcades. I'm not sure that your idea of finding and publishing the location of classic arcade machines is a very good though. This will eventually lead to the last few machines being bought up and sold on eBay to private collectors. There are a few companies out there that find, restore and then sell these machines for large amounts of money to the general public. By publishing the locations and machines in your magazine you will be helping these people buy the machines and sell them on – all your readers will be doing the hard work for these businesses. At least while they are in the arcades other people can enjoy them. If they are bought up by private collectors they will never see the light of day again unless they're sold on eBay for large amounts of cash. We, the general public, will never see or play them again in their original cabinets and locations.

I know where there is one arcade with loads of classics all in the same room. When I first entered I thought I'd gone back in time, it was fantastic. They had the following machines available to play at 10p, 20p and a couple at 30p:

OutRun (upright)
Space Harrier (moving sit down)
Hard Drivin' (sit down, gears not working)
Super Monaco GP (full-size sit down)
Monaco GP (sit down, ultra rare!)
Rad Mobile (moving sit down)
Chase HQ (sit down)
After Burner (full size sit down)
Mortal Kombat II
Operation Wolf
Operation Thunderbolt
Jamma Pac-Man
The Simpsons (four player)
Twin Virtua Racing x2 (four-player linked sit down)

All these machines were original and working. The arcade owner told me that he had a couple more games in store including a Pac-Man, Lunar Lander and another upright OutRun. The owner had no idea how much these were worth and had already scrapped a couple of other machines. He also mentioned that he would get rid of them at the end of the season (Oct 2004), so I gave him my details as these machines should not be scrapped, working or not! I'm not going to give the details out of the location of this arcade, but it is somewhere in the UK. If these details were printed they would all be snapped up by dealers and private collectors.
Alan Jacobs, Rainham in Essex

RG: Thanks for your thoughts, Alan. The fact that we would be doing all the legwork for dealers did cross our minds when we first considered this feature, but as Paul Drury's piece on Pac-Man reveals, not all arcade owners are willing to sell their stock to the highest bidder. Before we decide the fate of this feature, we'd like to hear what our readers have to say on the matter. Send your views, along with any other arcade-related emails, to arcadehunt@retrogamer.net.

>Coin-op Conversions

They were great games in the arcades, but how did they fare when converted to home computers and consoles? Robert Mellor continues his comparison of AM2 coin-op conversions, this month focusing on its two biggest titles: After Burner and OutRun

It's 1987 and come Christmas Day, every kid in the country wants to be sat in front of the TV, playing on their shiny new copy of OutRun. The mega arcade machine has been converted to just about every home platform and, regardless of how faithful it is to the original, OutRun is the game *everybody* wants. It's a similar story the following year. After Burner zooms into the shops and kids are once again praying for a piece of the action.

The hype for both games was immense, and the fact that they targeted the money-spinning Christmas period was entirely deliberate. But was the version for your computer or console any good? Were you still playing it on Boxing Day, or were you watching James Bond movies on TV instead? To find out, we compare the original released with the updated versions that have appeared since. We begin with After Burner...

It's you against a swarm of supersonic enemy fighters... deadly heat-seeking missiles... laser-directed anti-aircraft fire...and body-jarring, brain-pummeling G-forces.
AFTER BURNER
But no matter who wins, you win.
SEGA

>After Burner

While OutRun is considered by many to be AM2's best game, After Burner must surely be the most thrilling arcade experience the team was able to create. Taking the role of an F14 fighter pilot, your mission was to take to the skies, blast aerial baddies, attack enemy strongholds, then head back safely to your allied base.

The game's graphics were colourful, well drawn and shifted around the screen at a stunning rate. The soundtrack was great too, with a thunderous score of electronic rock to accompany you through your mission. After Burner ran on what has become known as X Board Hardware, which was similar to Space Harrier Hardware but with a few notable differences. These included a total of 256 sprites available on screen at any one time (double the amount seen on Space Harrier-based games) and the ability to display four tile layers.

The available game cabinets proved to be the icing on the cake, with two different versions for prospective arcade owners to choose from. The standard upright model featured a flight stick which enabled you to execute simple linear manoeuvres all the way through to death-defying barrel rolls in order to avoid enemy fire. This stick came equipped with two fire buttons that activated your machine gun and rockets. Flashing lights also appeared at the sides of the machine's monitor to warn you when the enemy had a lock on you. The second variety of machine was a rolling sit-in version. This was a faithful recreation of your fighter's cockpit, complete with a system of hydraulics that allowed the seat to rotate left and right, and the entire cabinet to rotate on the vertical axis. Stereo speakers inside complimented the whole effect.

The original After Burner title, though, was more or less a prototype of what the finished article would become. Shortly after its completion, Sega decided that it could make the game even better, and improved the music while adding a throttle control to vary your jet's speed, faster rockets and more impressive stages. This updated version was then released as After Burner II and is what most people will remember as the game they played in the arcades.

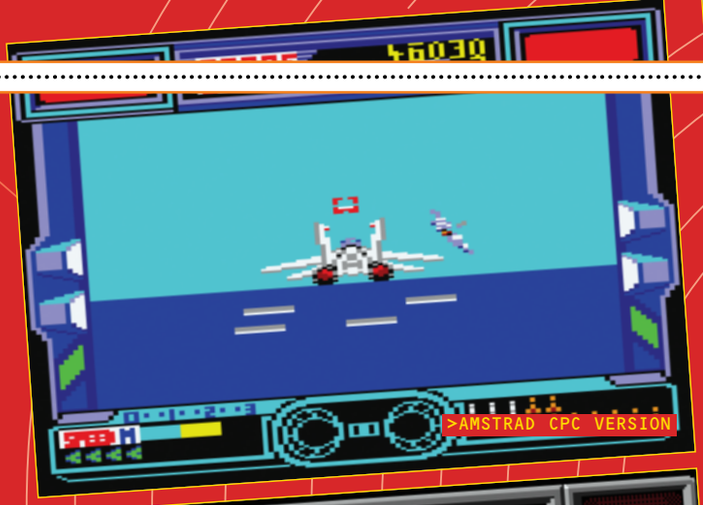
Home conversions

As with all conversions of AM2's simulator games, producing versions of After Burner for the home market was never going to be an easy task. Due to the clear hardware limitations, conversions would have to stand on their own two feet as playable games in their own right. Here's a look at some of the more notable attempts that were made over the years to bring After Burner into the home.

Sinclair Spectrum: The Spectrum version was the most obvious candidate for the "How on earth are they going to do that?" comment, and it was clear to everyone at the time that converting a game like After Burner to the Spectrum would be almost futile. Still, Activision did try in 1988 and you have to commend it for that at least.

The first aspect you noticed about the in-game action was undoubtedly the annoying border around the playing field. The status panel itself had a fair bit of colour to it for a Spectrum game, but this was at the expense of the playing area that was two-tone in appearance and bland with little detail on display. The plane sprites were good, though, and the Spectrum handled the speed of the game as best as could be expected, despite being jerky. In terms of playability, it wasn't particularly involving – partly because of the auto-fire on your machine gun that was a feature of many versions, and the whole thing became boring quickly.

Commodore 64: By and large, Activision's C64 conversion received appalling reviews upon its release, largely due to the criticism levelled at the Spectrum version. The title screen admirably attempted a primitive version of the rotating spheres as seen on the coin-op, while the game must be celebrated for a truly excellent rendition of the Final Take Off theme.



In terms of the in-game experience, the whole thing felt more like a spectator sport as all you could do was execute a barrel roll here and there and fire a missile every now and again. The play was fast, but it was difficult to grasp what was happening, and you'd only know that the enemy planes were firing at you once you'd been hit. On the plus side, there wasn't an all-encompassing border to put players off, but rather a set of status panels at the top and bottom of the screen. Another nice touch were the lights that, like the coin-op, flashed at dangerous moments to warn you, but they couldn't save the fact that the game was unplayable.

A superior second version, known as After Burner USA, was released on the C64 by Mindscape in 1989. This attempt played a lot better than Activision's effort and also featured the odd bit of sampled speech here and there. The screenshot displayed is from the Activision version.

Amstrad CPC: This version featured an annoying in-game border like the Spectrum release and a weird rendition of the Final Take Off theme that sounded tinny and uninspiring. The in-game sounds, meanwhile, were limited to a mix of weedy FX. Auto-fire was again utilised for your machine gun to constantly spray a barrage of bullets at the oncoming enemy, while the fire button took control of your missiles and the Space bar alternated between your airspeed velocities. The game looked decent enough in relation to what was accomplishable at that point in gaming history, but the lack of any good music took a lot away from the experience.

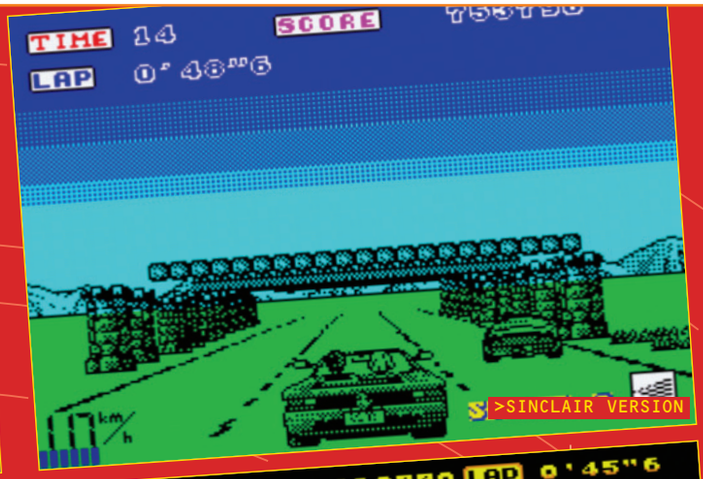
Atari ST/Amiga: As was sadly so often the case at the time, the programmer chose not to take advantage of what the Amiga could truly do, and its version of After Burner was, therefore, a generic clone of the Atari ST game. Both versions felt like a rush job, with the boring and jerky play that plagued the 8-bit versions. The music was acceptable, but nothing to get excited about, while what sampled speech there was quickly became repetitive and annoying. Graphically, the 16-bit versions weren't too bad, if looking washed out at times.

This was unfortunately another missed opportunity by Activision. The Atari ST version is perhaps forgivable, but the Amiga was capable of a lot more and the game was no doubt released quickly to capitalise on the machine's growing success.

Sega Megadrive: After Burner was one of Sega's early flagship titles for the Megadrive. While perhaps not coming off as well as OutRun did, the game managed to feature extremely smooth, colourful graphics and good renditions of the arcade's theme music. On the downside, the Megadrive confusingly suffered from the auto-firing machine gun syndrome that was seen on many 8-bit versions, which was somewhat perplexing when taking into account the system's three-button control pad. Play-wise, it had a weird laidback feel to it and failed to capture the tension and adrenaline-pumping frenzy of the original. Overall though, it was a stepping-stone to the perfect conversions from Sega that would follow.

PC Engine: Much like OutRun, the PC Engine's attempt at After Burner looked spot-on in relation to the arcade original, and was perhaps even more impressive than OutRun. It was again released by NEC Avenue in 1990 and, for the most part, proved to be a faithful translation. The take-off sequence appeared intact, and most of the explosions, little touches and general graphical effects made it over from the coin-op. It looked even better than the Megadrive version, but the sound let things down with grating interpretations of all the supposedly recognisable theme tunes. Despite this setback, the PC Engine remained an excellent version, playing with a lot of speed and at a smooth rate.

Sega 32X/Sega Saturn: These later conversions of After Burner were released by Sega itself and are, befittingly, arcade-perfect. The 32X game looked and sounded identical to the arcade original and played like a dream, although it was missing the odd frame of animation. As with OutRun, the standalone Saturn special edition featured excellent re-workings of the original soundtrack, along with the basic versions of the music to satisfy purists. Like OutRun and Space Harrier it featured a higher frame rate than the coin-op, making it an improvement over the original. Like other early AM2 games, an arcade-perfect version of After Burner also appeared in Shenmue 2.



OutRun

In 1986, AM2 unleashed its unquestioned masterpiece on the gaming community in the form of this definitive arcade racer. This game saw you take the control of a red-hot Ferrari Testarossa in a cross-country race that had you hurtling through a variety of simply gorgeous stages in an attempt to reach the next checkpoint before your time ran out.

Starting at the exquisitely designed Coconut Beach stage, you had to negotiate the level in hand before coming to a fork in the road that offered you a choice of either turning left or right. Both directions would yield access to a completely different course. After speeding your way through five consecutive stages you were greeted by a finish line, complete with a humorous ending sequence which differed depending on which route you took.

OutRun was, without question, the game that really came together for AM2 and changed arcades overnight. The setup that powered the game consisted of the requisite Dual 68000 CPU and a Z80 sound chip. With a video resolution of 320x224, 4,128 colours and the ability to display 128 sprites on-screen at any given time, the graphics on the 15 varied stages were dazzling. Every kind of landscape imaginable was represented – from a sun-kissed beach complete with ocean spray and fluffy clouds, to a sandy dash through a barren desert complete with tight twists and turns. It looked great and sounded just as good, thanks to a selection of three top tunes (with Magical Sound Shower surely being the standout track).

Apart from the stunning graphics, smooth gameplay, breakneck speed and awesome soundtrack, OutRun broke new ground in videogames in that it was the first racer to feature an undulating road. Games such as Pole Position and Road Blasters only featured a road that curved from left to right. Thanks to the power of the hardware, OutRun generated a road that could rise and fall, resulting in the player experiencing thrilling drops down steep hillsides and nerve-jangling climbs that saw the horizon totally obscured from view.

The OutRun arcade cabinet came in four basic versions. Firstly, there was the stand-up mini model with a force-feedback steering wheel and gear stick below the screen, along with brake and acceleration pedals at your feet. There was also a full-size version of this stand-up cabinet with the same setup as the mini version. Next up was the sit-down model, which allowed you, appropriately enough, to be seated in front of a 20in screen while playing. Finally, there was the deluxe rolling cabinet that incorporated a 25in screen plus hydraulics that shifted your seat from left to right, creating an even greater sense of realism.

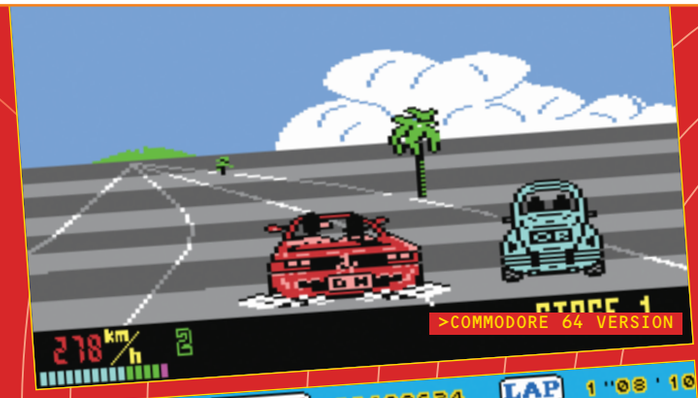
All of this came together to create what many consider to be the definitive arcade racer. Other games that ran on the OutRun hardware included Super Hang-On and Turbo OutRun, which came available as a conversion kit for existing OutRun cabinets.

Home conversions

From its initial conversion to home systems by US Gold in 1987, OutRun has featured on a plethora of different formats over the years. Here is a rundown of some of the various ports the game received:

Sinclair Spectrum: If nothing else, the graphics in the Spectrum conversion (handled by Probe Software) remained accurate to the arcade original. Although the limitations of the Spectrum hardware meant that it would always be saddled with the burden of monochromatic graphics, the line drawings of the car itself, the road, scenery and rival vehicles were surprisingly true to the original. The Spectrum was also the only 8-bit computer version to feature the road fork that let you choose your own route, although this resulted in a rather painful multi-load system (even in 128Kb mode).

The gameplay was not exactly lightning-quick, but it was a brave attempt to recreate it on such a humble platform. There was also music present in the game, although the ability to select all three tunes was not represented. Overall, the Spectrum version was a mixed bag, but a decent enough attempt at creating what was always going to be nothing short of a miracle.



Amstrad CPC: Gazing at the screenshots on the adverts that US Gold was running would lead you to believe that the Amstrad version was something special. The trucks seemed massive, the car looked accurate and the scenery appeared colourful and detailed.

Unfortunately, playing the game brought these thoughts crashing down to an entirely different reality. The CPC version (also handled by Probe) was easily the worst home version of OutRun. The game ran at an appallingly slow speed and the graphics were badly scaled, while the music (what there was of it) was a disappointing drone. Amstrad owners probably had more fun with the free audiotape of the arcade soundtrack accompanying all 8-bit versions.

Commodore 64: Although this version was often tarred with the same brush as other bad conversions of the game, developer Amazing Products managed to create one of the best racing games to appear on the Commodore 64. It played nicely with a genuine illusion of speed. The scenery was sparse but well drawn, the undulating road effect was nicely re-created, the tight twists and turns were present and the whole game proved to be a very playable experience overall. Sadly, the road forks were missing so you couldn't choose your own route, but the programmers cleverly crammed five separate loads into a single cassette, meaning that once you had finished the first load, you could reset your machine, load the game up again and be presented with a completely different route.

On the audio side, you had a choice of three in-game aural options, comprising FX, Splash Wave and Magical Sound Shower (Passing Breeze was sadly absent). The Commodore SID Chip created wonderfully faithful versions of these classic tunes, and that the programmers managed to cram this and everything else into a single load was admirable.

Atari ST/Amiga: The ST conversion, for which Probe once again did the honours, was not exactly a masterpiece. The Amiga version, meanwhile, was an even greater disappointment due to the missed opportunity of it all. The Amiga was one of the most popular and powerful home computers available in the late 1980s. In terms of sound, graphics and all-out CPU power, few of its rivals could touch it. Unfortunately, US Gold didn't see it that way and decided to port the Atari ST version over and make do with that. What a crying shame. With the Amiga's superior capability we could have had one of the definitive home versions of OutRun. Instead, we got a jerky, incorrectly scaled and unenjoyable game that sounded as bad as it played. A flashy intro sequence with a nicely drawn picture of the Coconut Beach starting point masked a disappointing conversion, which left Amiga owners wondering why the heck they had to make do with a lousy ST port when their machine was capable of so much more.

MSX: Two different versions of OutRun were released for the MSX: one was by US Gold and the other by Ponycanyon. The US Gold version was similar to the Spectrum version with a few extra colours on screen. Ponycanyon's attempt, meanwhile, was totally different and much closer to the Sega Master System version (with slightly sparser detail). With the US Gold game being basically a direct port of the Spectrum version, the same comments apply to both. The Ponycanyon version wasn't too bad though. It was a long way from being the best conversion available, but overall not a bad attempt. It included road forks, scenery morphs, a selection of all three tunes and the odd bit of undulating road. Not great, but worth a look. Note that the screenshot printed is from the Ponycanyon version.

PC Engine: The PC Engine (Turbo GraphX 16) received a worthy version of the game. The conversion was handled by NEC Avenue in 1990 and it did the system justice. The graphics were accurate, colourful and faithful to the arcade original. The tiled floor could become a little too obvious for most people's taste at times, and the track often appeared gaudy, but these are minor quibbles. The stages morphed seamlessly as you approached the checkpoints, although the PC Engine did have trouble at the road forks when it came to drawing two layers, producing a distracting strobe effect as a result.

Sound-wise, you had a choice of all three musical compositions. The audio was a little tinny, but

the renditions of the famous themes were recognisable enough, and overall it was definitely one of the better versions.

Sega Master System/Game Gear: Sega handled the conversion for its own Master System console and this too turned out to be a decent version. It was not up to the standard of the PC Engine game, but it proved a playable runabout with most of the major features of the coin-op.

When it came to converting the game to the portable Game Gear console, though, Sega made a strange incarnation as opposed to just producing a direct port of the Master System version. For a start, the stages were, for the most part, completely different from those found on the arcade original. Add to that automatic gear transmission, strange handling and the annoying way your car basically stopped dead every time you touched another vehicle, and the prospective buyer had a bit of a disappointment in their hands. Game Gear owners would have been far better off playing the Master System version through the Master Converter.

Sega Megadrive: Once again, Sega opted to convert OutRun to its Megadrive console, and it did a fantastic job. The 16-bit machine handled the coin-op admirably and reproduced all the major features of the original classic. It was brightly coloured, a lot of fun to play and fast to boot. While the music wasn't as funky as the coin-op, Sega offered an excellent consolation prize in the form of a fourth selectable tune entitled Step On Beat. It was a catchy piece, and it's a pity it wasn't included as a feature of the original.

The only small problem with this version was that it was too easy. While the arcade version was nightmarishly difficult in parts, it was common to complete it on the first few goes. You could afford to crash several times and still make the finish line here, whereas crashing on the original meant you'd all but blown your chances. All in all, a superb port, only bettered by one other...

Sega Saturn: Quite simply, this WAS the arcade version perfectly ported. Released as a standalone title in Japan, and on the Sega Ages compilation throughout the rest of the world (which also included Afterburner and Space Harrier), the Sega Saturn version was the first time you could truly experience OutRun at home in all its glory. Everything about it was perfect, and it turned out to be a faithful emulation of the arcade game. In fact, the Saturn version had a higher frame rate than the coin-op, so it was even better if anything! While the game came conveniently packaged as a compilation title throughout the rest of the world, Japanese buyers were treated to a standalone version which featured both the original arcade soundtrack and absolutely stellar re-arranged versions that were remixed and updated for the mid-90s.

OutRun has since appeared on the Dreamcast and Xbox consoles, as a playable game in Yu Suzuki's Shenmue 2. It should be noted that it was not totally accurate to the arcade original – particularly in the graphics department (your car was no longer a Ferrari, for example). It's worth checking out, but the definitive home version is still the awesome Saturn port.

PlayStation 2: Recently released in Japan as part of the Sega Ages 2500 series, the PlayStation 2 update of OutRun is much more than a direct port. The graphics have been given a polish – the roadside objects that whiz past have been recreated in 3D, and your car has been given a shiny makeover. The game is faster too, and the familiar three tunes have once again been remixed. Besides the standard 15-stage race, Sega has added a couple of new modes. Arrange mode takes place over a number of new and updated tracks, with the aim of beating several rivals to the finish line. Time Attack mode, meanwhile, removes all vehicles from the roads so you can clock up fast times unopposed.

OutRun on PS2 is a great game and the new additions will appeal to those who have mastered the arcade original. But in the same breath, fans may be disappointed that a direct port of the original is not included. For that you'll need to stick with the Saturn version. RG*

Box of Tricks

You wanted games, and you wanted them fast. But cassette tapes slowed down the action. Which is why one device – the Multiface – was so popular, enabling people to copy tapes to disk, plus many other functions. David Crookes talks to Alexander Goldscheider, the man behind this powerful piece of kit

If you owned a computer with a tape deck then you certainly also possessed a sheer hatred for the time it took to load games. It was pure purgatory to sit and stare at a screen for up to 10 minutes, as colours flashed, the tape deck vibrated and the loading noise clogged up the ears. There was a sense of anticipation, excitement and downright dread as the end seemed near. Frequently the air turned blue and a cracking sound was heard as another tape was thrown to the floor after stubbornly refusing to work.

We persevered because tapes were cheap, and in countries like the UK, they were usually the only format the games were available on. All computer users wanted was something to transfer the files across from tape to disk – something that worked and got around the increasingly sophisticated copy protection being used by software houses. That something was the Multiface (Multipurpose Interface), a plug-in device that slotted into the back of the Sinclair Spectrum, and later the Amstrad CPC, Atari ST and Commodore Amiga.

Alexander Goldscheider, pictured here with part of his Matchbox model collection

How Romantic

The Multiface was devised by Alexander Goldscheider and his business partner, Ondrej Korinek. They arrived in Britain from Prague in 1981 and, by their own admission, had barely two pennies to rub together. Within one month of arriving, they developed an interest in computing, following a suggestion from a friend in Czechoslovakia.

Alexander's first purchase was a Sinclair ZX81. He says: "I was very much into automating my music recording and I saw the computer as a great way of being able to achieve it. I was into electronic music even before Jean Michael Jarre. As I used the ZX81 more, I became hooked and with Ondrej, decided to create something to make people's lives easier."

They had noticed how frustrating it was to load games from tape, so they developed a simple program called Trans-Express to let people copy tapes to disk. "We placed an advertisement in Sinclair User, advertising the tape for £10," says Alexander. "The ad cost us £142.50 which was a lot of money to us because we were penniless and had come over as refugees, in effect. But we had 1,000 orders in one month! People sent us their money by mail order and because we said we'd send the goods out within 28 days, we had four weeks to manufacture the product and send it out. We didn't take out a loan and were completely self-financed. We made enough money from Trans-Express to be able to create the Multiface."

Working under the trade name Romantic Robot – named after a song Alexander had written – the pair began to work on what would become one of the most sought after peripherals of the period. The name Multiface was a good description of what it did – lots of things. It wasn't just a tape-to-disk copier, as it took an exact copy of what was in the computer's memory at that time and let you do with it as you pleased. For most people this meant dumping the whole thing to disk, but it had other uses for serious gamers. The vast majority of titles at the time did not have facilities to save your progress, but by freezing the game and then saving it to disk, gamers could pick up from where they left off. And best of all, they wouldn't have to load the blasted game from tape.

Of course, there was also the ability to implement cheats. The Multiface made it possible for people to change crucial elements of a game and the most common thing to alter was the address, which controlled the number of lives. By poking the relevant address and changing the value, you could earn yourself infinite lives. Poking the memory in this way was far easier than entering the lengthy loader hacks that involved typing in many lines of code (and like most basic listings, rarely worked). In this respect the Multiface was a precursor to Datel's popular Action Replay cartridges that are still available today.

"The pokes provided an extra attraction for people to buy the Multiface," says Alexander. "It was one of the main reasons people got one. People like to progress in games and by getting infinite lives, we made it possible."

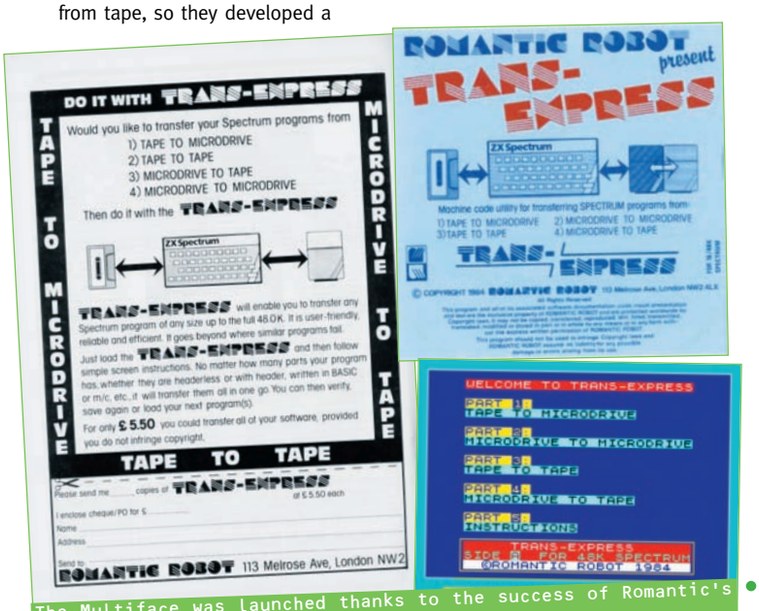
Later versions of the device also included a built-in memory editor. It allowed budding programmers to delve deeper into the machine's innards to view and edit the current contents of the computer's memory. This was ideal for learning programming tricks and techniques.

Prize possession

The Multiface worked so well that Crash magazine voted it 'Product of the Year' three years running. "We once won first, second and third place," Alexander enthused. "But they had to give the second and third prizes to other people. It looked as if we were sponsoring the award!"

Having a hardware device that plugged into the machine as opposed to a software program enabled the Multiface to get around one of gaming's biggest problems at the time: memory. Programmers often squeezed every last byte from the machines, leaving no room for a tape-to-disk transfer program. The Multiface had its own memory and was able to work in the background, coming into effect at the push of a red button.

The only restriction was that to play the games back, you had to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The Multiface was launched thanks to the success of Romantic's first utility, Trans-Express

The Multiface One – unprecedented and unbeatable!

have the Multiface plugged in. Romantic Robot claimed that each device had a serial number, which meant that the Multiface used to save the game had to be the same one plugged in to run them. In reality, it was possible to run saved games on any machine with a Multiface plugged in as long as it was the same computer type. And it didn't take long for other third-party manufacturers to come up with a software patch that allowed the games to be run on all computers.

The gamers were happy but, judging from Romantic Robot's adverts for the Multiface, there was some concern among software houses that people would pirate games meaning they'd lose thousands of pounds in revenue. It was feared that when the Copyright and Patents Act came into play in 1990, the Multiface would be banned. At least that's the impression Romantic gave, creating an advert with the tag line, "Buy Now – or Never...".

Alexander tells a different story: "It was a joke really. We had a good reaction to the Multiface and we never heard anything bad from a single person. There was a period when copyright became an issue in principle. We took legal advice but that was on our own initiative. No one threatened us in the nine years we sold the device."

But he says Amstrad had expressed some misgivings: "They had taken over Sinclair and were reboxing the Spectrum. They had an unfriendly attitude towards us and they were trying to work out whether it was just a straight copy tool. But then Amstrad approached us and said they wanted to bundle the Multiface in a package with the Spectrum. They went cold on the idea in the end and I'm not sure why. I think it was because it would have pushed up the price of the computer."

However, Romantic continued

Broadening the range. Romantic released Wriggler for the Spectrum, and very good it was too

to push the line that the device could be discontinued. "The CPC is no longer a viable platform – so we're selling off our last Multifaces!", it claimed in one series of adverts, which ran for almost two years.

Alexander explains: "We simply had to sell as many as we could each month, and because we only sold what we made ourselves, we had to keep coming up with new products to make the business fresh. We also sold a game called Wriggler. It was written by a 15-year-old kid called Matthew Edwards. He had a twin brother, Allin, who helped us come up with the adverts and also practically ran the mail order side of Romantic Robot. It really was a cottage company. We had a lady who was good at soldering who made the Multifaces for us."

Ahead of the game

Some manufacturers tried to counteract the potential piracy threat from the Multiface by making their games check for the hardware when they were loading. If it detected its presence, it crashed the computer or refused to run.

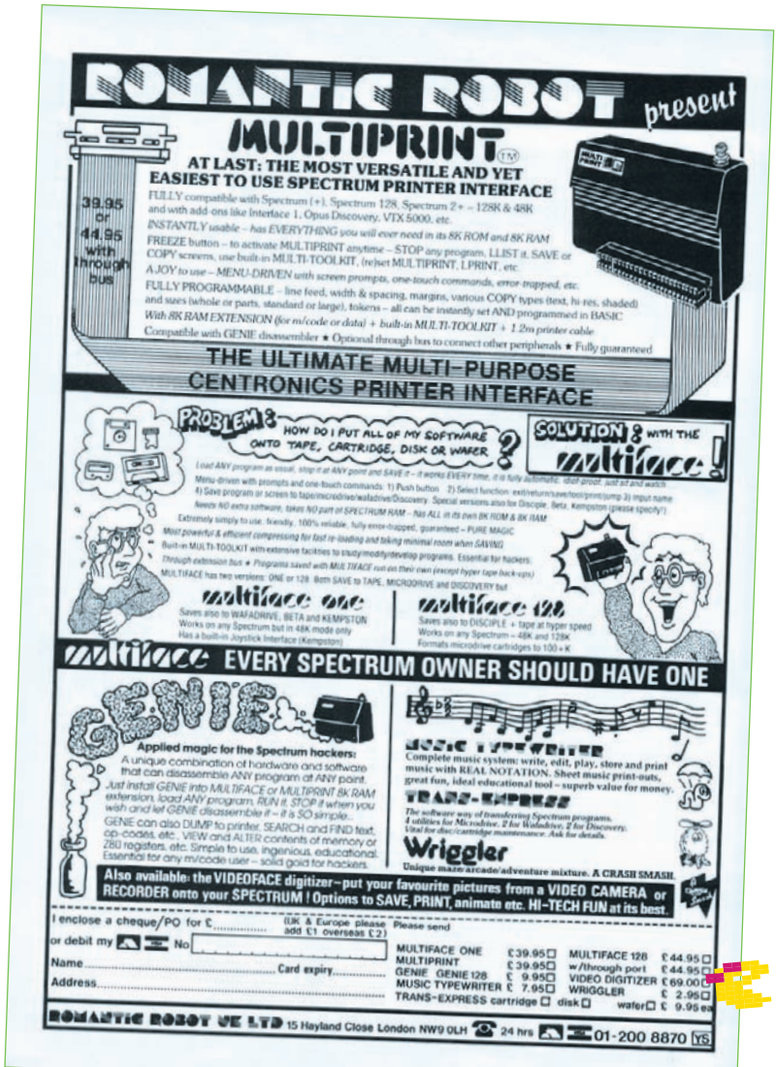
Romantic Robot decided to create an on/off switch – the idea being to turn it on once the game had loaded, thereby avoiding detection. So the software houses created a system that constantly checked for the Multiface, even after it had finished loading. It meant that flicking the on switch crashed the computer before there was time to press the red button.

Romantic Robot immediately hit back by redesigning the Multiface so that it was always turned off until the red button was pressed. And for those people who wanted to run a previously saved game, they could press a blue button to reset the computer and activate the Multiface at the same time. It worked.

"We had to work hard on the Multiface to keep ahead," says Alexander. "But because we were a small firm it became tiring. We had to come up with a new product each year – there was Multiface One, Multiface 128, Multiface 3, two Amstrad Multifaces, an Atari ST Multiface, a Videoface interface, several Multiprint interfaces... It was all too much in the end. We should have sold the firm as a going concern at the time but we didn't, partly because the company was the two of us." Romantic was obviously doing something right, as the Multiface range sold more than 100,000 units at £40 each. These days they regularly attract up to £20 on eBay.

The Multiface 3, here being emulated by Spectaculator

Now 54, Alexander has since parted company with Ondrej, but still trades under the Romantic Robot name, creating computer-realised music that he sells through his own label. "It was great being involved with the old computers," he says, "and even better to say that we didn't just sell other people's stuff. We created and manufactured our own hardware and software, and what was so good about computing at the time was that people were encouraged to come up with their own games and devices. There was a real feeling of being part of it. There used to be camaraderie between rivals, but now the market is so competitive and impersonal. Where are the good old days?" RG*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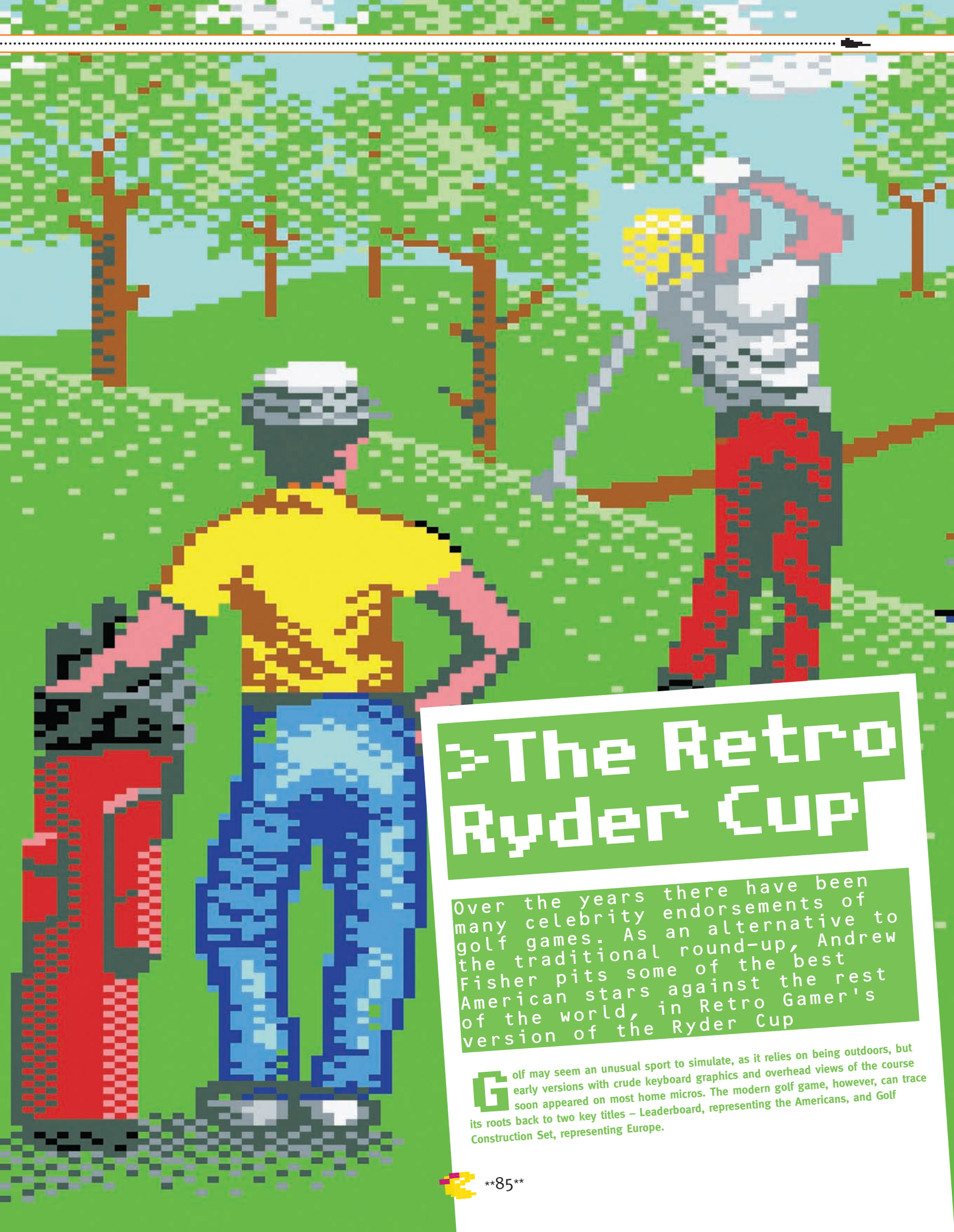
The famous 'last chance' advert. Unsurprisingly, the Multiface remained on sale long after the cut-off date



The Retro Ryder Cup

Over the years there have been many celebrity endorsements of golf games. As an alternative to the traditional round-up, Andrew Fisher pits some of the best American stars against the rest of the world, in Retro Gamer's version of the Ryder Cup

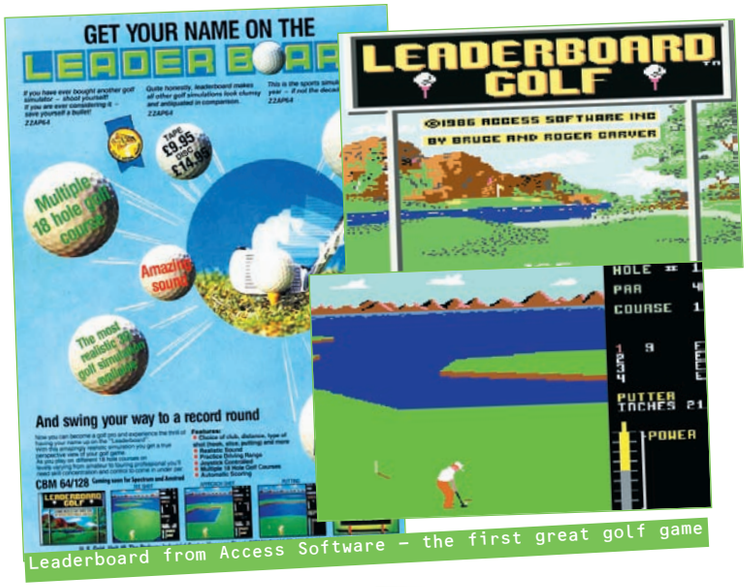
Golf may seem an unusual sport to simulate, as it relies on being outdoors, but early versions with crude keyboard graphics and overhead views of the course soon appeared on most home micros. The modern golf game, however, can trace its roots back to two key titles – Leaderboard, representing the Americans, and Golf Construction Set, representing Europe.

Tee off

Programmed in Hungary and released in 1985, Golf Construction Set from Ariolasoft was one of the earliest games to feature more than one course. Little touches like having to select which clubs to leave behind and the ability to alter your stance made this an early winner. The game had four courses, including famous venues like the Belfry, and add-on disks were planned. The courses were displayed in fairly rudimentary 3D and the golfer didn't appear on them. Instead, he was animated below the main view and acted as a meter to decide how well the shot was played. *So, a good drive from the World team landing in the fairway.*

Access Software's Leaderboard is synonymous with golf on 8-bit computers, with its excellent 3D courses and the power meters that have become an important part of the whole genre. The courses in the original game (released in 1986) were dominated by water – each hole was made up of a series of floating islands. Watching a hole build up on screen before you was fascinating at the time, although occasionally the game was forced to help you out if your golfer stood in an impossible place. The fluid animation of the golfer and the appropriate sound effects gave you a real sense of taking part and being in control; a multiplayer game over several courses was exhilarating and competitive.

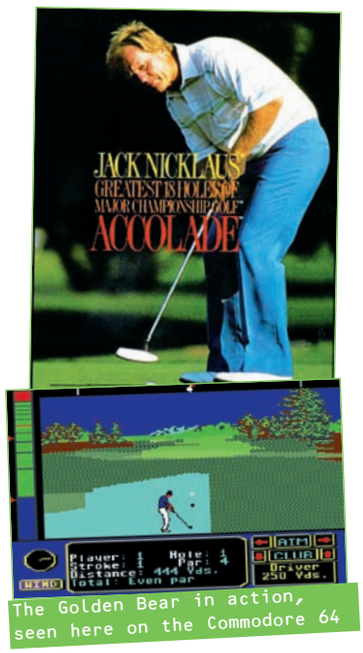
The game developed over the next couple of years, starting with an add-on tape/disk of extra courses, then Leaderboard Executive added trees and bunkers. World Class Leaderboard is for many the best golf game for any 8-bit machine, with its series of famous courses (16 in total were released). You could also design your own course using combinations of holes from the other courses. *The Americans have driven a good 20 yards further with this one.*



Leaderboard from Access Software – the first great golf game

The first of Nick Faldo's two endorsed golf games

Nick Faldo has long been a hero of the European Ryder Cup team, and on the 8-bit machines he got to star in two different games. Nick Faldo Plays the Open (Mind Games) came first in 1986. The game adopted an overhead view and provided you with a caddy who advised you on club selection. The second game, Nick Faldo's Championship Golf (Grandslam), appeared on 8- and 16-bit machines in 1992 and played in full 3D. Cleverly, the drawing of a new view was masked by the course map, so the game flowed better. An overhead angle was used when putting, which worked well. Sadly, this was to be one of Grandslam's last releases. *A solid approach shot, but it leaves the World team some way short of the green.*



The Golden Bear in action, seen here on the Commodore 64

The Golden Bear himself endorsed Accolade's series of golf games. Jack Nicklaus' Greatest 18 Holes of Major Championship Golf is probably one of the longest game titles ever, and the game also notched up an impressive number of formats and courses. Play once again took place on a series of 3D views that built up as you watched – these were quite blocky on the 8-bit machines but impressive enough on the 16-bit consoles and computers. Playing against strong computer opponents was a nice feature, and add-on disks boosted the number of courses you could play, although console owners had to buy a new version if they wanted more. *Jack selects his short iron and the Americans are now a chip away from the green.*

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Wentworth Old Course • The Belfry
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PLUS
• An easy to use Construction Set enabling you to build and play on any course in the world or an imaginary one of your own design in "3D AND PLAN VIEW"
• Up to 4 players
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VARIABLE FEATURES INCLUDE:–
• Save Handicap feature – as you improve so does your handicap
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• Lie of the ball
• Strength of shot
Limited Edition includes free STROKESAVER® golf aid
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GET YOUR COPY OF 'THE GOLF CONSTRUCT
Special competition!
Win £500 worth of golf equipment, or cash equivalent.
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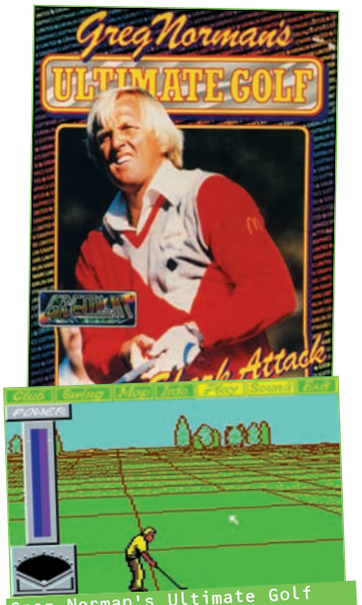
ariola
WIND
Next Hole
Last Hole
Oops
Clear
Load
Save
As the title suggests, Golf Construction Set also let you build your own courses



Greg Norman's Ultimate Golf was known as Shark Attack in some countries

Shark attack!

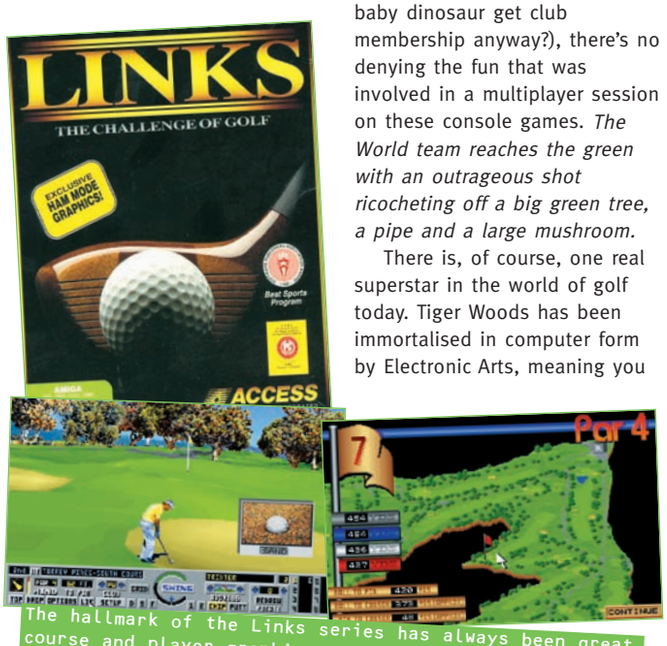
The Great White Shark himself, Greg Norman, is next up. His Ultimate Golf game from Gremlin appeared on 8- and 16-bit machines in 1990, but there were serious drawbacks for slower machines. A nicely designed icon and menu interface gave you lots of freedom – you could remodel your swing, alter your stance, and check the lie – but when you accessed the menus, the main view was redrawn. Slowly. The bright and gaudy colours on 16-bit machines also put many off what was actually a fairly decent game. *Greg's sliced this one into a bunker, and things don't look good for the World team.*

As the PC became more important as a gaming platform, the team behind Leaderboard (Bruce and Roger Carver) created a new generation of golfing titles. Links first appeared in 1990 and used all the familiar elements of the earlier game but added a lot more depth. Greater control over how your shot behaved made for a better game, and the graphics and sound became more detailed with each release. (Many players chose to switch off the 'sound sets' after listening to the same phrases repeated time after time.) Like other franchises, yearly releases and improvements followed, bringing us up to the present day with online tournaments and websites devoted to the game. *The Americans chip onto the green, the ball rolls agonisingly past the pin, and that's left them with a tricky putt for a birdie.*

Two groundbreaking games were released from Japan, the home of many golf fans. Everybody's Golf on the PlayStation and Mario Golf on the Nintendo 64 added cartoon characters and power-ups to the standard golf game. Your character could throw a tantrum at a missed a putt or dance in delight at a great drive. Although the purists laughed at the lack of realism (how does a baby dinosaur get club membership anyway?), there's no denying the fun that was involved in a multiplayer session on these console games. *The World team reaches the green with an outrageous shot ricocheting off a big green tree, a pipe and a large mushroom.*

There is, of course, one real superstar in the world of golf today. Tiger Woods has been immortalised in computer form by Electronic Arts, meaning you can stand in the shoes of its sporting idol. Again, all the familiar gameplay elements are there – swing meters, 3D views and an overhead course map – and if you want a bit more fun, check out Cyber Tiger Woods Golf.

So, the Americans sink their birdie putt and win the hole. What happens next? Load up your favourite golf game and decide the outcome. R6*



The hallmark of the Links series has always been great course and player graphics

>Crazy golf

Of course, there were also many games that presented golf in a wackier light. Mini-Putt from Accolade appeared on 8- and 16-bit machines in 1987. Each hole loaded separately to give extra detail, and windmills, moving doors and even a space shuttle put in an appearance. An animated golfer in the corner of the screen leapt for joy after a good shot and broke his club in frustration at a miss. Electronic Arts released Zany Golf a year later, which had an isometric view and some strange obstacles, including a bouncing hamburger. It was also one of the few miniature golf titles to appear on the Megadrive.

Nintendo combined golf with one of its best-known characters. Kirby's Dream Course on the SNES featured puzzling courses, Kirby's unusual range of power-ups and some very jolly music. Fuzzy's World of Miniature Space (1995) brought a series of space-themed holes and an isometric view to the PC, while Hole in One (not to be confused with the awful budget game of the same name) introduced some strange gravity effects.

Minigolf Maniacs was released much more recently. This title was originally to be released by Sierra Online, before its unfortunate demise. Thanks to the Internet and a dedicated fan though, the game is now complete, with full 3D graphics depicting the courses and the creatures you control. Mix in power-ups and lots of modes, and you have a great game.

Fancy a game of crazy golf? There are plenty to choose from

A few of the more recent golf games that have graced consoles and PCs

>DIY Game Creator

Back in issue 2, Jason Darby showed you how to make your own retro games using your trusty PC. Now he takes a personal trip down memory lane to see what game creation tools were available to those who lacked coding skills

When I think back to the 80s and early 90s, my memories are mostly of Arnold Schwarzenegger movies, 2000AD and computer games – a healthy childhood, you might say. But what really stands-out is my many attempts (and failures) at making computer games.

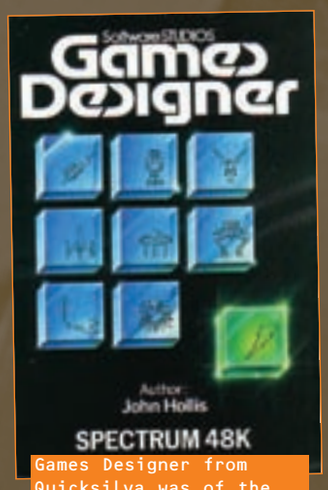
Let me take you back to a time when bedroom programmers were in abundance and one person could make a lot of money (well, more than could be earned on a paper round); a time when a teenager could write a game in a few months and have it snapped up by a publisher. Yes, there were certainly possibilities in this golden era, but these weren't available to those who lacked programming talent. So thank God for game creation software.

Arcade action

It took publishers some time to realise they could make a lot of money from selling the tools they used to create games. One of the first such titles was Games Designer, published in 1983 by Quicksilva and released on the Spectrum. It would set you back a staggering £15 but came with eight example games, ranging from a simple game called Splot to the bizarre shoot-em-up entitled Attack of the Mutant Hamburgers.

Unfortunately, Games Designer was restricted in the type of games it could make. Yes, if you wanted to create a Space Invaders-style game then it was just the job. But creating anything more ambitious was impossible; everything was preset and all you could do was tweak. You were able to change the sprites in the game, for example, and the type of predefined movements. But that was it.

The final nail in the coffin was that games had to be played via Games Designer itself. You couldn't save them as a separate running program to pass to mates. Unless your friends and everyone you wanted to distribute the game to had a copy of the program, there was very little chance of your becoming famous or rich.



Games Designer from Quicksilva was of the earliest examples of a game creation package

The same year, 1983, saw the release on the Spectrum of HURG (High-level User-friendly Real-time Games-designer). This came from Melbourne House and it's no wonder they made the name into an acronym because it must have taken them most of the 80s to think it up!

With HURG you got three full games included as part of the package, and these were pretty good compared to those offered with Games Designer. In fact, HURG was a powerful little program, allowing you to add your own backgrounds, set specific movement paths, write your own title page/instructions, and offered many other options. Whilst it was a good product overall, it was let down by the fact that, like Games Designer, you needed HURG to run your minor masterpieces. Shame.

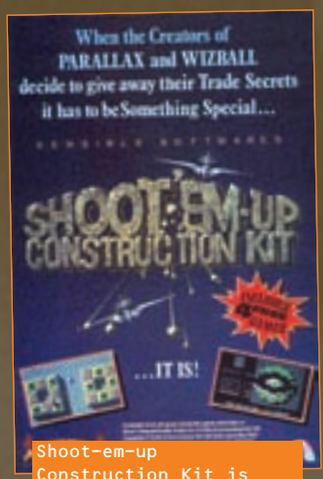
Argus Software's Arcade Creator followed on the Spectrum in 1986 and came on two cassettes. It was packed in a rather grand video-style plastic case – just how we liked it in the wasteful 80s. The program provided you with the power to create two different types of computer game – a platformer and a shoot-em-up. You could create your own graphics with either the cursor keys or a joystick. Better still, there were examples graphics and screen designs that you could load from tape. There was even a simple sound generator included. Again, your homemade games could not be distributed as standalone titles, but other than that Arcade Creator was a nifty little program.

With Arcade Creator you could create either a platform game or a shoot-em-up

The next year saw Outlaw release Sensible Software's Shoot-em-up Construction Kit on the Commodore 64 (16-bit versions followed later). SEUCK was great for creating either upward-scrolling shoot-em-ups, like War Hawk or 1942, or push scrolling shoot-em-ups, like Rambo or Commando.

If you needed further proof of its abilities, SEUCK came with two example games to show what could be achieved. SEUCK was much better than previous game-designing efforts, despite criticisms that it game output was very samey (but shoot-em-ups are pretty-much alike anyway by their very nature). Still, at least you could save the games onto tape or disk and distribute your creations without the need to own the original product. The only restriction was that you had to add a copyright message saying that your effort had been made with SEUCK.

If you're still not convinced by SEUCK, such is the popularity of the program that it's still in use today – there are regular mini-game coding competitions in which it's the preferred weapon of choice. The fact that it's still being used 15 years later clearly speaks for itself.



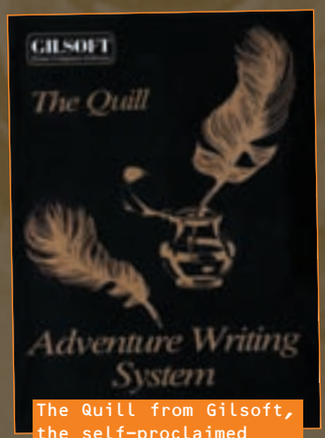
Shoot-em-up Construction Kit is still used by Commodore 64 enthusiasts today

Adventure quest

The cerebral gamer of the period preferred exploring fantasy lands to defending the planet from alien invasion and there was a huge market for text adventures, driven by the fact that adventure-game authoring packages made it easy to create games on a par with commercial releases. Indeed, many high-profile games were created using The Quill, Professional Adventure Writer (PAW) or Graphic Adventure Creator (GAC). All you needed was a grasp of English grammar and a damn good story.

Released on the Spectrum and Commodore 64 in 1983, The Quill Adventure System was a revelation at the time. However, it was also unconventional, complex and certainly not as linear or straightforward as the arcade game creators. On loading the program you were hit by a multitude of menu options; some self-explanatory but most totally confusing. The technique was to build an adventure game in stages, which meant putting most of the building blocks together before attempting to create your vision. The good thing about this was that, in theory, you could transfer the same details between games, so long as they were in a similar environment.

Many high-quality games were created using The Quill. In fact, Gilsoft actually published a number of games sent in by users. Only text-only games could be created initially, but thanks to the release of The Illustrator in 1984, users could add details graphics to location descriptions.



The Quill from Gilsoft, the self-proclaimed Welsh Wizards of Adventure!

Following the success of The Quill, Gilsoft released a follow-up in 1986 – PAW (Professional Adventure Writer). PAW naturally inherited many of The Quillís features, as well as its and look and feel. But once again, on loading the program the user was bewildered by a large number of menu options. With the release of the Spectrum 128, Gilsoft was able to cram more features into the program, not all of which would be apparent to the casual user, but which allowed for more complex and

larger adventures. PAW had better vocabulary handling and bigger, faster graphics routines (with options like high-speed shading). The whole package was powerful and very impressive. It's testement to how good it was that so many commercial titles were created with it.

During the same year, Incentive Software entered the fray with GAC (Graphic Adventure Creator). GAC was a direct competitor to PAW but was always considered technically inferior. Though programmers used GAC to create adventure games, it was PAW's ability to change the layout of the screen that won many users.

As with all of the early game creation programs, memory use was an issue, and although you could create graphics they ate a lot of memory space. GAC had an interesting approach to this problem, allowing you to merge pictures or reuse them with additional layers on top. The drawing tools were notoriously difficult to use, however. That said, GAC also had a simple programming language, though it was so simple that many users (myself included) couldn't figure the damn thing out!

GAC – the ideal tool for creating illustrated adventure games

Script kiddies

Game-creation tools became more complex with the rise of 16-bit machines. Rather than the linear "create an adventure game" or "create a scrolling shoot-em-up" programs, the new breed of authoring tools came with their own simple programming languages. This code would access the hardware in the background without the user needing to know any complex machine code. This made the tools very powerful but kept things as simple as possible. Two of the most popular products were Blitz Basic and STOS/AMOS.

STOS was released in 1987 on the Atari ST but, due to that machine losing out to the Amiga in the popularity stakes, was terminated soon after. In early 1989 it was ported over to the Amiga. AMOS, as it was called, quickly became the most popular game creation tool of the early 90s. Updates and upgrades followed in quick succession, with the result that AMOS is still held in high regard today.

Blitz Basic was released in 1990 and quickly gained a strong following. The first version of Worms was written in Blitz Basic and this inspired confidence in the product. Version 2 appeared the following year and added many more features to an already impressive toolkit. Blitz Basic split people down the middle – you either loved it or hated it. If you hated it then that was probably because you were already smitten with AMOS.

Klik here

As the Amiga started its fade into obscurity, the PC dropped in price and ultimately became the platform of choice. It was only natural that game creation tools would jump ship. Two developers – Francois Lionet, one of the developers behind STOS/AMOS, and Yves Lameroux – came up with an ingenious concept that revolutionised game creation – the event editor. Using a completely icon-driven interface, non-programmers could create professional games without getting their hands dirty with code.

The appropriately-titled Kilk & Play first appeared in 1994. By that time, everyone was in the mindset that writing games meant tapping in code, so this was a shot in the arm which got people interested in making games again.

Klik & Play was a major hit on release and has since being translated in 14 different languages. It was so easy to make games that even a nine-year old could put a game together in no time. The only downside was that some people dismissed Klik & Play because it didn't have a 'coding' look and feel to it. They argued that, because of this, it simply couldn't be powerful. However, although the product had limitations, it could still deliver intricate and enjoyable games. You could certainly create simple mock-ups and prototypes much faster than you could if coding in the C programming language.

Klik & Play was followed by The Game Factory in 1996, and then both programs were superseded by the ever-popular Multimedia Fusion in 1998. Many of the games on the Retro Gamer coverdisc were created using one of these three programs. What's more, the successor to Multimedia Fusion is to be released shortly, ensuring that anybody and everybody can continue to create quality games in the comfort of their own bedrooms.

Klik & Play simplified game creation with its easy to use editors

3D worlds

It wasn't long before someone decided that a 3D game creation system might be a hit. Incentive had already scored success with GAC so it was hardly a surprise when it published 3D Construction Kit, which it used to create the stunning Freescape games. The idea that you could create games as good as Driller and Dark Side struck a chord with many game makers.

Released in 1991 on both 8-bit and 16-bit machines, The 3D Construction Kit came with a number of preset shapes that you could place on the playfield, and also featured a complex programming language to build games. Due to memory constraints on the 48Kb Spectrum, CPC464 and Commodore 64, the main editors were split into three programs that were loaded in turn. The 128Kb Spectrum, Amstrad 6128 and 16-bit versions didn't have to worry about this and the editors were combined into one.

3D Construction Kit was a powerful program that allowed you to create complex 3D games. The only real complaints were that the 3D engine was slow, and that you were somewhat limited in the size and shape of objects you could create. Looking through the manual for the program reveals that it was aimed more at making virtual-reality worlds than the next award-winning game. The marketing boast that "Freescape is now available for you to play around with" perhaps says it all.

With 3D Construction Kit you could create Freescape games in the style of Driller and Total Eclipse

Interview

Francois Lionet has been making game-creation programs since the 1980s and is responsible for many titles, including AMOS and Klik & Play. In the 90s, Francois joined forces with Yves Lamoureux and they created Clickteam (www.clickteam.com), which has continued to produce authoring software ever since. We spoke to Francois about his grand gaming legacy

Francois Lionet, right, at last year's Click Convention

Retro Gamer: What did you do before you got into creating STOS?

Francois Lionet: I was writing games. I made games on the Oric-1 and Oric Atmos, then on the Commodore 64, Amstrad CPC and IBM PC. I published my first game in 1982 – it was called Driver and was a clone of an arcade game where you drive a car in a maze. I wrote the music myself (I was very proud) and it sold 2,000 copies. It was incredible!

RG: What was your inspiration for starting STOS?

FL: Whenever I used a new machine, my first job was to write a sprite generator so that I could make the games later. The sprite generator had to be as fast, powerful and as easy to use as possible. So I wrote Spritonic for the Oric-1 and Lionosprite for the CPC. I also had to write a musical routine, so actually I was programming the tools. The idea of STOS came from people I worked with at the time. They wanted a game creation system for the Atari ST.

RG: Was it an easy decision to move over to the Amiga as a platform?

FL: Yes it was. The Amiga was a very exciting machine. I was amazed by its possibilities. And the Atari ST was not selling so well at that time. Furthermore, the Amiga outnumbered the Atari in England. So it was a logical decision to make.

RG: Do you know how many copies of STOS/AMOS were sold?

FL: With the compilers, Easy AMOS and AMOS Professional, I'd say in total we sold about 300,000 copies.

RG: What do you think of the following that STOS and AMOS still have today?

FL: It's great! It's good to see that people are still interested in these old programs. But knowing the way it was programmed, I am amazed to see they work on emulators. I was not exactly 'tender' with the system and I liked to peek and poke everywhere instead of using system functions.

RG: How did you meet Yves and start work on Klik & Play?

FL: Yves and I worked on a game called Captain Blood in 1986. I was doing the C64 and PC adaptation (in CGA colours!) and Yves was working on the CPC adaptation. We worked together very well, so when AMOS was finished (after AMOS Professional Compiler), I wanted to work with him on a game creation program on the PC. He agreed, and we started to work on our first title, Klik & Play.

RG: Have you ever tried any other game creation programs?

FL: Yes, when they were out at the time. There was a system that was out on the Commodore 64 that was called Graphic Basic. That was a great source of inspiration for STOS.

RG: Would you say its easier to create games now than in the Eighties?

FL: Well if you want to create clones of the 80s games, it is simpler. You now have a game creation system that allows you to program without really programming (I'm talking about Multimedia Fusion of course). But if you want to create a 3D game, it is a lot more difficult, and a task that cannot be handled by a single person.

RG: Have you considered making a commercial game using your own programs?

FL: Honestly, I am really not that good at game programming. I was okay in the Eighties, when the games were much simpler, but nowadays I must say that my level is not high enough to create a commercial game.

RG: You're still creating game creation tools today. Why?

FL: Because it is my thing! In all these years, we have developed an understanding for the process of game creation, and a lot of routines too, like the event editor and runtime editor. It would be foolish to send all these to the dustbin and start from scratch on something else completely. And I like it. I might not be that good in game creation, but I feel very good in game creation creation! And also, the name Clickteam is now recognised for its game creation software, and I want that to continue.

Both STOS and the Amiga port AMOS were big hits on the 16-bit machines

Softography

Francois Lionet's game creation programs

STOS Basic (1987)

The original version was written in French, Francois' native language. The English version followed after the success of the French version. STOS made history as the first programming language to reach number one in the ST Gallup games chart.

STOS Compiler (1988)

The last game creation tool on the ST made by Francois. The compiler was a specialised version to vastly improve the speed of any programs created in STOS Basic.

AMOS Basic (1989)

The first foray onto the Amiga platform for Francois. AMOS Basic features a language set of over 500 commands and included its own built-in animation language called AMAL.

AMOS Compiler (1990)

The AMOS Compiler was released to speed up programs made with AMOS Basic. Anyone creating serious programs would need this to ensure that their games ran at an acceptable speed.

Easy AMOS (1991)

Programming is easy, right? Well it was with Easy AMOS! It was a simplified, ultra-friendly version of the AMOS Basic language, with simple to follow examples and a manual written for beginners.

AMOS Professional (1992)

AMOS was given a complete overhaul to enhance it further. An additional 200 commands were added (taking it to 700 in total), and the product was backward compatible so you could import any previous programs and take advantage of the new command set.

AMOS Pro Compiler (1993)

Again the compiler had an overhaul to match the AMOS Professional. The result of having a compiler over the standard version was lightning-fast speeds and compression routines that could squash programs by up to 80%. On limited memory platforms like the Amiga, this was vital.

Klik & Play (1994)

The product that started a whole new range of programming tools for the PC. Using a revolutionary "event editor", Klik & Play broke new ground for game makers, marrying power features with ease of use.

The Games Factory (1996)

The vast majority of game makers will admit to using The Games Factory at some point. This product is still in use nearly eight years after its original release.

Click and Create (1996)

This program took the game-making components of The Games Factory and added more functionality for those looking to produce multimedia applications.

Multimedia Fusion (1998)

The true successor to Klik & Play. It was going to be called Click and Create 2, until distributor Corel ran into difficulties and sold a number of their titles to IMSI. IMSI then renamed the product Multimedia Fusion.

Jamagic (2001)

Working on its first 'scripting' programming language since AMOS, Clickteam released Jamagic, a 2D/3D multimedia and games creation product using its own language set.

atari advertising gallery

Another month, another retro gallery. Continuing with the Atari theme, we've raided our classic magazine collection in search of Atari ST software and hardware adverts. And it wouldn't be complete without a couple of Silica Shop ads! Once again, please note that these are old adverts. Don't ring the telephone numbers listed, because no-one will answer and you'll look foolish

SUPER ACTION FOR YOUR
ATARIST
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the name of the game
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The first casualty of war is innocence.
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Based on a classic arcade game — at least one reviewer found it impossibly difficult — but the player Hi-scores speak for themselves!

"...as with all Llamasoft games, Andes Attack is utterly fantastic... incredibly fast, tremendous fun and a true bargain..." **New Atari User**

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GRID RUNNER

An updated and massively enhanced version of the game that was a **worldwide** success on 8-bit machines!

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"Brilliant, pure arcade zapping...no-one produces games like Llamasoft...takes its place amongst my favourite games — magic!" **ST Action**

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ATARI ST

520ST

POWER WITHOUT THE PRICE

THE NEW ATARI 520ST

Under the new leadership of Jack Tramiel (former boss and founder of Commodore Business Machines), Atari Corporation have marked their entry into the world of business/personal computers with a machine which leaves the competition standing. Tramiel's slogan 'Power Without the Price' has been implemented in the manufacture of the new 512K Atari 520ST colour computer which offers the user amazingly high performance at an incredibly low price. Launched as a work-station, this new system incorporates seven software packages as well as the 520ST computer with 512K RAM, mouse controller, high resolution monochrome monitor (640x400), 95 key keyboard (with 18 key numeric keypad), MIDI interface, GEM and a 500K 3½ inch disk drive, all for the package price of only £651.30 (+VAT = £749). Dubbed the 'Mac beater' and the 'Jackintosh' (after Atari's Chief, Jack Tramiel), Atari's new machine has been directly compared with the Apple Macintosh RRP £2595 (+VAT = £2985) which offers similar features and capabilities but at a much higher price. Favourably reviewed by the UK's highly critical specialist computer press, the 520ST is likely to make a great impact in this country as a sophisticated alternative to an IBM PC, APRICOT or APPLE MACINTOSH. Unlike its overpriced competitors, the Atari 520ST can be linked up to a colour monitor to unleash a choice of up to 512 colours. The addition of colour brings out the full potential of graphics packages such as GEM.

USER FRIENDLY GEM OPERATING SYSTEM

The power of the ST is harnessed and made user friendly by the new operating system 'GEM' from Digital Research. GEM stands for Graphics Environment Manager and allows a user friendly colour or B/W graphics interface which closely resembles that of the Macintosh. This similarity extends to the use of moveable resizeable windows, icons to represent objects such as disks and disk drives, and the use of pull down menus and a mouse. The advantage of all this is that the computer becomes extremely easy to use. GEM has now been implemented for the Acorn, ACT, Atari, IBM, ICL, and Olivetti. Software written for GEM on one computer should also run under GEM on another computer. This will enable the market to quickly produce a large library of standard interchangeable software.

FREE SOFTWARE AND FUTURE EXPANSION

The Atari 520ST comes supplied with seven free software packages as listed below: 1) TOS -Tramiel Operating System based on CPM 68K. 2) GEM Graphics Environment Manager by Digital Research (DRI) giving a WIMP (Window, Icon, Mouse, Pull down menu) environment. 3) DR GEM Paint for creating graphics masterpieces. 4) DR GEM Write for word processing. 5) Logo learning language to enable you to write your own programs easily using turtle graphics. 6) DR Personal Basic a powerful user friendly version of the Basic programming language. 7) BDS operating system giving you access to dozens of business applications packages already available on the market. Designed with future expansion in mind, the ST also features a host of different interfaces to the outside world and an impressive list of accessories is planned. Atari will soon be releasing a 1000K (1MB) 3½ inch disk drive, and a 15MB hard disk storage system as well as a mass storage compact disk (CD) player capable of storing an entire 20 volume encyclopedia on one disk. A full range of inexpensive printers are planned including dot matrix, daisywheel and thermal colour printers. With its unbeatable graphics, speed and software at a price which is far below that of any comparable personal computer currently on the market, the ST is all set to do battle with the competition. To receive further details of the ST from Silica Shop, just fill in the coupon below with your name and address details and post it to us.

Silica Shop Price: £651.30 + £97.70 VAT = £749.00 This price includes:

- ★512K RAM
- ★B/W MONITOR
- ★MOUSE
- ★500K 3.5" DISK DRIVE
- ★GEM
- ★KEYBOARD (95 KEYS)

£749

ATARI 520ST SPECIFICATION

MEMORY
512K RAM (524,288 bytes)
16K ROM expandable to 320K
Port for addnl 128K plug-in ROM cartridges
200K TOS operating system

GRAPHICS
Individually addressable 32K bit-mapped screen with 3 screen graphics modes:
320x200 pixels in 16 colours (low resolution)
640x200 pixels in 4 colours (med resolution)
640x400 pixels in monochrome (high res)
16 shades of grey in low res mode
512 colours available in low/medium res
8 levels of each in red, green and blue

ARCHITECTURE
4 custom designed chips
GLUE Chip - MMU Memory Mngmnt Unit
DMA Controller - Graphics Processing Unit
16/32 bit Motorola 68000 processor at 8MHz
eight 32 bit data registers
eight 32 bit address registers
16 bit data bus/24 bit address bus
7 levels of interrupts/56 instructions
14 addressing modes/5 data types

DATA STORAGE
High speed hard disk interface
Direct memory access 1.33 Mbytes per second
CD (Compact Disc) interface
Built in cartridge access
Dedicated Hard disk controller

DISK DRIVE
500K (unformatted) extended 3½" floppy drive (display 349K (formatted) storage capacity

SOUND AND MUSIC
Sound Generator
Frequency control from 30Hz to above audible (3 voices (channels) in wave shaping sound in addition to a noise generator
Separate frequency and volume controls
Dynamic envelope controls
ADSR (Attack, Decay, Sustain, Release)
Noise generator
MIDI interface for external music synthesizers

KEYBOARD
Separate keyboard microprocessor
Standard QWERTY typewriter styling
Ergonomic angle and height
95 keys including 10 function keys
Numeric keypad - 18 keys including ENTER
One touch cursor control keypad

MONITOR
12" screen - high res monochrome monitor
640x400 monochrome resolution

VIDEO PORTS
Display - Low Resolution - 40 columns
Med/High Res - 40/80 plus cols
Medium res RGB (Red/Green/Blue) output
High resolution monochrome (Black & White)

COMMUNICATIONS
Bidirectional centronics parallel interface for printers, or modems capable of input/output
RS232C serial modem/printer interface
VT52 Terminal Emulation Software
Maximum Baud Rate up to 19,200
High speed hard disk interface
Floppy disk controller (Western Digital)
2 joystick ports (one for 2 button mouse)
MIDI interface for external music synthesizers

GEM WIMP ENVIRONMENT
WIMP - Window Icon Mouse Pop-down menus
Two button mouse controller
Icons/Pull down menus/Windows
GEM VDI - Virtual Device Interface
GEM AES - Application Environment Services
GEM BBT - Bit Block Transfer
Real time clock & calendar

SOFTWARE
GEM environment
with user friendly Macintosh style operation
'TOS' - Tramiel Operating System
Atari's own system based on CP/M 68K with hierarchical directory & file structure plus a host of MS DOS & UNIX command structures
'BOS' - Business Operating System
to run any standard BOS business programs
GEM desktop
with GEM PAINT graphics mgmt system and GEM WRITE word processor
Personal BASIC and DR Logo
originally written by Digital Research (DR) very much like those on other machines except for the extensive use of pull down menus, mouse control and windows

VARIOUS
Dimensions: 470mmx240mmx80mm
Replaceable external power supplies
Expansion: 3½" floppy disk drives 500K/1,000K (two drives can be connected)
3½" 15Mb hard disk
CD (compact laser disc)
Dot matrix & daisywheel printers (black)
Thermal dot matrix (colour)
RGB & monochrome monitors

LANGUAGES
BASIC & LOGO supplied
Many others will soon be available, including Assembler, BCPL, C, Cobol, Compiled Basic, Lisp, Modula-2 and Pascal

Note: Some of the above specifications are pre-release and may therefore be subject to change

MACINTOSH v F1e v 520ST

"Imagine a Fat Mac - the 512K Apple Macintosh - but with a bigger screen, a far bigger keyboard with numeric keypad, cursor and function keys, and colour. That gives you some idea of what the Atari 520ST is like, except for two important things. First the Atari seems faster. Second the Atari system is about one third of the price."
June 1985 - Jack Schofield - **PRACTICAL COMPUTING**

FEATURES OF BASIC SYSTEM	APPLE MACINTOSH	APRICOT F1e	ATARI 520ST
Price Includes B/W Monitor	YES	NO - extra £200	YES
Keyboard size mm (LxDxH)	330x147x50	450x167x28	470x240x60
Keyboard size ins (LxDxH)	13x5¾x2	17¾x6½x1	18½x9½x2½
3½" D/Drive (Unformatted)	500K	500K	500K
3½" D/Drive (Formatted)	399K	315K	349K
WIMP (Window, Icon, Mouse ..)	Apple	ACT - Activity	GEM
Real-time Clock	YES	YES	YES
Polyphonic Sound Generator	YES	NO	YES
RS232 Serial Port	YES	YES	YES
Centronics Parallel Printer Port	NO	YES	YES
Dedicated Floppy Disk Controller	NO	YES	YES
Hard Disk DMA Interface	NO	YES	YES
Full stroke keyboard	YES	YES	YES
Number of keys on keyboard	58	92	95
Numeric Keypad	NO	YES (16 Keys)	YES (18 keys)
Cursor Control Keypad	NO	YES	YES
Function keys	NO	10	10
16-bit processor	68000	Intel 8086	68000
Processor running speed	8MHz	4.77MHz	8MHz
RAM size	512K	256K	512K
Number of graphics modes	1	4	3
Number of colours	Monochrome	16	512
Max Screen Resolution (pixels)	512 x 342	640 x 256	640 x 400
Mouse included	Single Button	NO - extra £95	Two Button
Replaceable External Power Pack	NO	NO	YES
Cartridge Socket	NO	NO	YES
Joystick Ports	NO	NO	YES (two)
MIDI Synthesiser Interface	NO	NO	YES
Monitor Size	9"	9" - extra £200	12"
RGB Video Output	NO	YES	YES
System Cost with: Mouse - Monochrome Monitor - 512K RAM - 500K Disk Drive			
Price of basic system (exc VAT)	£2595+VAT	£595+VAT	£652+VAT
+ Mouse	Included	£95+VAT	Included
+ Monochrome Monitor	Included	£200+VAT	Included
+ Expansion to 512K RAM	Included	£295+VAT	Included
Price of complete system (exc VAT)	£2595+VAT	£1185+VAT	£652+VAT
PRICE rounded down including VAT	**£2,984**	**£1,362**	**£749**

PRESS COMMENT

"Atari's new corporate image as an aggressive low cost computer maker is likely to mirror that of Commodore where Mr. Tramiel established the maxim that 'Business is war'."
August 21st 1984 - **FINANCIAL TIMES**

"This is the only personal computer I know of that comes with a Midi interface as standard."
Peter Bright - March 1985 - **PERSONAL COMPUTER WORLD**

"The (GEM) version running on the Atari 68000 machines will have the additional advantage of leaving the PC version standing."
April 6th 1985 - **PERSONAL COMPUTER NEWS**

"It would seem that GEM offers the ideal operating system..."
March 7th 1985 - **POPULAR COMPUTING WEEKLY**

"I found it (GEM) extremely easy to use and was very impressed with the way in which it disguises the underlying hardware and operating systems lurking under the surface."
Peter Bright - Feb 1985 - **PERSONAL COMPUTER WORLD**

"The new Atari ST computers truly represent to the consumer what Jack Tramiel is saying -- easy-to-use computing power without the price."
March 1985 - **ANALOG COMPUTING**

"It (the ST) uses the most modern technology that is affordable, in a package that gives a professional impression."
May 23rd 1985 - **POPULAR COMPUTING WEEKLY**

"The Atari ST is one of the most elegant designs I have seen. Atari has used an original and elegant method of memory management which should make the ST faster than any other PC on the market - in any price bracket. ... The 64K dollar question is would I go out and spend money for one? To which the only answer is "Try and stop me!"
John Lambert - July 1985 - **ELECTRONICS & COMPUTING**

"The 520ST is technically excellent ... The 520ST hardware is the new standard by which others will be judged."
July 1985 - **YOUR COMPUTER**

"This machine is significantly more powerful than an IBM PC ... If it's possible to design a sure-fire winning machine, this is it."
May 11th 1985 - **PERSONAL COMPUTER NEWS**

"... the use of GEM makes the new range of Atari computers so similar to the Macintosh (with the added attraction of colour), that they are already being called 'Jackintoshes'."
May 2nd 1985 - **COMPUTING**

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PLEASE SEND ME FREE LITERATURE
ON THE NEW ATARI 520ST COMPUTER

Mr/Mrs/Ms: Initials: Surname:

Address:

Postcode:

Do you already own a computer
If so, which one do you own?

THE 1990 ATARI ST PRODUCT GUIDE

PERIPHERALS & ACCESSORIES

FLOPPY DISK DRIVES

MONITORS

JOYSTICKS

SCANNERS

PRINTERS

DISK BOXES

ROBOTICS

PLUS MUCH MORE!
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AND ITS FREE!

If you own an Atari ST, then you will not want to miss the FREE Atari ST Product Guide from Silica Shop. This 48 page, full colour guide is packed with details of peripherals, accessories, books and software for the Atari ST range of computers. In fact, the 1990 Atari ST Product Guide is the most comprehensive product handbook available for Atari ST owners. Not only does the Product Guide provide an invaluable source of information to Atari ST computer users, it is available absolutely FREE OF CHARGE! Just complete and return the coupon below for your FREE COPY! In addition to ALL Atari hardware, the range of products featured in the catalogue includes:

PERIPHERALS:

Robotics	Clocks	Floppy Disk Drives
Hard Disk Drives	Emulators	Graphic Tablets
MIDI/Music	Modems	Modulators
Monitors	Mouse controllers	Plotters
Printers	Scanners	Scientific Equip
Sound Digitisers	Sound Samplers	Video Enhancers

ACCESSORIES:

Cables	Cleaning Kits	Disks
Disk Boxes	Dust Covers	Joysticks
Monitor Access	Mouse Access	Power Supplies
Printer Labels	Printer Paper	Printer Ribbons
Stands	Upgrades	

BOOKS:

ST Dedicated	68000 Processor	General Computing

SOFTWARE - ENTERTAINMENT:

Arcade Games	Compilations	Advanced Sims
Sport Sims	Adventures	Board & Strategy

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OF THE 1990 ATARI ST 48 PAGE PRODUCT GUIDE

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Opening Hours: Mon-Sat 9.30am-6.00pm	Late Night: Thursday until 8pm	Fax No: 071-323 4737	
SIDCUP SHOP:	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX	**Tel: 081-302 8811**	
Opening Hours: Mon-Sat 9.00am-5.30pm	Late Night: Friday until 7pm	Fax No: 081-309 0017	
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Order Lines Open: Mon-Fri 9.00am-6.00pm	Closed on Saturdays	Fax No: 081-308 0608	

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Postcode: ..... Tel: .....

Which computer(s), do you own? .....

E&OE - Advertised prices and specifications may change - please return the coupon for the latest information.

520ST FM

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Afterburner
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Super Hang-On
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Star Ray

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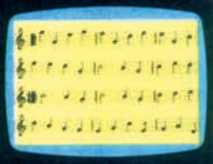

MUSIC MAKER features MIDI compatible composer, drum editor and voice editor.

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Retro Gamer Coverdisc

The issue 7 coverdisc features 50 of the very latest PC retro games. There are arcade games, adventure games, puzzle games and loads more. In addition, to tie in with our Over the Rainbow article, there are video clips of 160 Spectrum games being completed. That's over one hour of in-game footage! We also have the latest demos from Superior Software and Trymedia, so you can try before you buy

step 1 Place the coverdisc into your CD/DVD drive and it should start automatically. If not, select Run from the Start menu and enter D:\browser.exe (assuming that D: is the letter of your CD/DVD drive). When the browser appears, click OK to accept the declaration.

step 2 Some programs are provided as .exe files and these will run or install straight from the disc. If the program chooses to install itself, simply follow the onscreen prompts and then wait while the files are copied to your hard drive.

step 3 Many programs are stored in .zip files, so you might need an archive manager like WinZip, which is under the Utilities browser tab. Extract all the files from the .zip archive using the Extract feature and place them in an empty folder, then run the .exe file.

step 4 If you are looking for a particular program, click the Search button and enter a keyword. The browser program will search the disc and place all the relevant results under the left most browser tab. They can now be accessed directly from here.

Problem solving

If you're having a problem with a particular program on our coverdisc, please view the help file in the program for assistance. You might also consider visiting the website of the program author for further help. If this fails, please email: **techsupport@livepublishing.co.uk**.

If you are having problems with the CD, first check that it is not dirty or scratched. CDs can be cleaned by holding them under the cold water tap and gently rubbing the silver side with a tissue. Dry it carefully with another tissue.

If the disc still doesn't work, then it may be faulty. Faulty discs should be returned to Retro Gamer, Live Publishing International Ltd, Europa House, Adlington Park, Macclesfield, Cheshire, UK, SK10 4NP. We will replace all genuinely faulty discs.

Coverdisc helpline

01625 855051

techsupport@livepublishing.co.uk

(Monday-Friday 10am-4pm)

Helpline for coverdisc problems only

DISCLAIMER

Some of the programs on the Retro Gamer disc interact with your PC on a fundamental level. We strongly advise you back up your personal data before using the disc. Due to the way the Retro Gamer disc is compiled, Retro Gamer, Live Publishing International Limited and/or any associated company and/or individual cannot take responsibility for damage to your PC or otherwise arising from use of the coverdisc. **You use the programs on the disc at your own risk.**

Five of the best

With 50 games on the coverdisc, it can be difficult to know where to begin. So why not try these five games for starters?

Jarcadian

The VIC-20 classic Arcadia from Imagine is given an impressive remake with Jarcadian. A relentless onslaught of antagonists heads your way, dropping bombs as they go. You'll need to be quick with your reactions in this game because your fire power is limited by its range. As you destroy them, the occasional power-up falls and you can collect it to boost your arsenal.

Fans of the original will love this remake, as none of the gameplay has been lost and it's still as fiendishly addictive as it was.

BeeDeeDash

Boulder Dash, released by First Start software in 1984, is rightly considered a classic. It was one of the first games to feature a construction kit (subsequently released in 1986). BeeDeeDash is based on the C64 version of the game, featuring almost identical music and, of course, Rockford himself. The game is simple – collect diamonds from the mines, avoiding the falling rocks and other such hazards. If you get stuck, press Escape and start the level again. Even the construction kit is mimicked and there's also a lovely level designer for you to try out.

GLTron

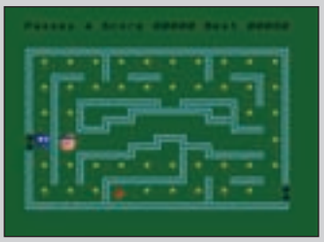
This is a superb game based around the light cycle sequence in the Tron movie. The game utilises beautiful 3D graphics and excellent title music. Its controls require only the use of left and right keys but extremely quick reactions are required, especially because you're playing against three computer-controlled players. The rules are simple – a trail is left behind as you and your opponents speed forward. Touching this trail will destroy any cycle on contact. As the game progresses, the arena fills with light trails and becomes more and more difficult to navigate. The last player to survive wins.

Bruce Lee 2

Bruce Lee is yet another classic from yesteryear. This unofficial sequel has taken the gameplay and original graphics, and created a much bigger world to explore. The levels consist of platforms and ladders along with hazards to dodge, items to collect and bad guys to knock out. Bruce Lee 2 is pure and simple retro fun, and improves on the original in almost every way. It's just a shame that it took so long for a sequel to arrive!

Hungry Horace PC

Spectrum fans should remember the infamous Horace, star of Horace Goes Skiing, which was given away free with some editions of the original rubber-keyed Speccy. In terms of gameplay, Hungry Horace PC is an almost pixel-perfect remake of the original, with slightly tweaked graphics and improved (sampled) sound effects. To play the game you must feed Horace by running around a maze that is strewn with food, while avoiding the creatures who roam freely within. It's simple stuff but undeniably fun.



Disc extras

What lies beneath the Extras tab on this month's disc?

MEGA-TREE ARCHIVE

Okay, here it is – the complete Mega-tree archive as featured in last month's Retro Gamer, including disk images of all the C64-format disks acquired in the auction. The archive also contains sprites and concept sketches. If you decide to create a game using any of the sprites, please let us know so that we can mention it in the magazine!

RETRO GAMING RADIO

Retro Gaming Radio is an MP3 show all about classic gaming, featuring interviews, news, hardware and software reviews, flashbacks, editorial rants and more. We've included a complete episode on the coverdisc but beware – it runs for just under three hours! For more information, and to download other episodes, visit **www.retrogamingradio.com**.

BACK IN TIME 2004 TRAILER

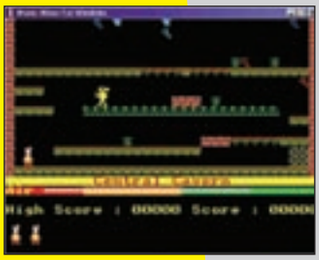
Thinking about attending this September's BIT Live event? This trailer, put together by Lee Bolton (**http://peeknpoke.emuunlim.com**), will certainly get you in the mood for what should be a superb show. For more information on BIT Live, visit **www.backintimelive.com**.

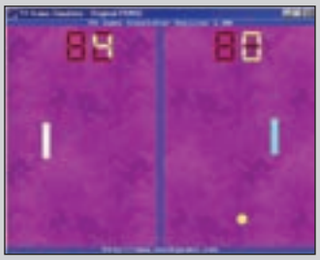
MORE TEA, VICAR?

This is a playable demo of Cronosoft's upcoming shoot-em-up for the Spectrum and is exclusive to Retro Gamer magazine (for proof check-out the loading screen!). You'll need a Spectrum emulator to load the tape image – you'll find Spectaculator in the Emulators folder on the disc.

TURRICAN 3

Another playable demo, this time for Smash Designs' Turrican 3. You can play level 1 (using a Commodore emulator like WinVice) and view video footage of level 3. The video is in DivX format, and you'll find the DivX codec and player bundle under the Utilities tab.


Manic Miner PC


TV Pong

Aquarius

Booty

PC retro games

Title	File Name	File Type	File Size	System	Type	Description
Aquarius	Aquarius.zip	Classic remake	3,682Kb	Windows (all)	Freeware	Kill underwater monsters in this remake of the Bug-Byte game
Arcadia	arcadia.zip	Shoot-em-up	1,111Kb	Windows (all)	Freeware	Protect the planet from the Atarian Battle Fleet
Assault	assault.zip	Classic remake	1,020Kb	Windows (all)	Freeware	Remake of the Spectrum classic Rebelstar for your Windows PC
Attrax	atxinstall.exe	Puzzle game	577Kb	Windows (all)	Freeware	A puzzle game best described as 'circular Tetris'
Ballistyx	Ballistyx.zip	Classic remake	100Kb	Windows (all)	Freeware	A great remake of the arcade hit Qix
Bee Dee Dash	beedeedash.zip	Maze game	3,625Kb	Windows (all)	Freeware	A Boulderdash clone, complete with construction kit
Biplanes	bip3d.zip	Shoot-em-up	1,519Kb	Windows (all)	Freeware	Gun down the enemy planes in this 3D shooter
Blitz	blitz.zip	Classic remake	242Kb	Windows (all)	Freeware	Drop bombs to destroy the city in this timeless classic
BombermanVB	BomberMan_VB_Install.zip	Bomberman clone	2,741Kb	Windows (all)	Freeware	Bomberman clone featuring several game modes
Booty	booty103.zip	Platform adventure	1,603Kb	Windows (all)	Freeware	A fun, faithful remake of the old Firebird game, Booty
Bruce Lee 2	brucelee2.zip	Classic remake	12,981Kb	Windows (all)	Freeware	A homage to the classic Bruce Lee game by Smila
Bunnyhop	bunnyhop.zip	Arcade game	806Kb	Windows (all)	Freeware	Guide the bunny safely across the deadly pond
Burn 2	burn2.zip	Classic remake	719Kb	Windows (all)	Freeware	A Gravitar-style interplanetary deathmatch
Cavern Fighter	Cavern.zip	Shoot-em-up	1,803Kb	Windows (all)	Freeware	Scramble-style game in which you have to avoid enemy missiles
Championship Wave Racer	WaveRacer.zip	Race game	2,141Kb	Windows (all)	Freeware	Be first to the finish line in this four-player jet ski racing game
Chuck Rock Dance	ChuckRockDance.zip	Dance game	2,028Kb	Windows (all)	Freeware	A dance game starring Chuck Rock
Fate of Yesod	yesod.zip	Classic remake	1,881Kb	Windows (all)	Freeware	An unofficial follow-up to Odin's classic Yesod games
GlTron	gltron-0.70-win32.exe	Light-cycle game	3,574Kb	Windows (all)	Freeware	Race deadly light-cycles in this multiplayer arcade game
Gridhunt	Gridhunt.zip	Shoot-em-up	10,183Kb	Windows (all)	Freeware	A 2D space battle game with multiplayer support
Hard Streets	HardStreetsv1.1.zip	Beat-em-up	5,116Kb	Windows (all)	Freeware	A beat-em-up with a spooky resemblance to Renegade!
Hunchy	hunchy.zip	Classic remake	927Kb	Windows (all)	Freeware	Another remake of Hunchback, but a good one nonetheless
Hungry Horace PC	hungry_horace_pc.zip	Maze game	701Kb	Windows (all)	Freeware	It's Hungry Horace, thrust into the 21st century!
IceBreaker	icebreaker-1.9.5.exe	Puzzle game	429Kb	Windows (all)	Freeware	Catch the penguins by smashing up the iceberg
Ifrit	ifrit100.zip	Shoot-em-up	967Kb	Windows (all)	Freeware	Stunning, if short, shoot-em-up in the style of Nemesis/Gradius
Invaders 1978	inv78-02.zip	Space shooter	49Kb	Windows (all)	Freeware	A faithful remake of the classic arcade game
Jarcadian	install-jarcadian.exe	Shoot-em-up	2,692Kb	Windows (all)	Freeware	The latest release from Ovine - based on Imagine's Arcadian
Kickle	kickle-0.81.win.zip	Puzzle game	393Kb	Windows (all)	Freeware	A action/puzzler based on old NES game called Kickle Cubicle
Lettris	lettris2.zip	Puzzle compendium	2,327Kb	Windows (all)	Freeware	Arrange the falling letters. A cross between Tetris and Scrabble
Manic Miner PC	ManicMinerPC.zip	Platform game	251Kb	Windows (all)	Freeware	A Manic Miner remake that runs on Windows PCs
Moon Defence	MoonDefenseInstaller.exe	Shoot-em-up	658Kb	Windows (all)	Freeware	Defend the moon from a savage alien attack
PACZ	Pacz.zip	Pac-Man clone	16,502Kb	Windows (all)	Freeware	A Pac-Man-style game featuring over 50 level of intense action
Painter	gmpainter.zip	Classic remake	1,051Kb	Windows (all)	Freeware	Paint the screen as quickly as possible
Penguin Panic	Penguinp.zip	Platform game	2,508Kb	Windows (all)	Freeware	A 25-level platform game packed with cute character sprites
PolyPolyX	polyX95.zip	Shoot-em-up	110Kb	Windows (all)	Freeware	A simple but very playable remake of Xevious
RetroSphere	RetroSphereDemo.zip	Playable demo	5,416Kb	Windows (all)	Demo	A stunning remake of Trailblazer. Reviewed in this issue
Robocop 2D	Robocop2D.zip	Shoot-em-up	12,532Kb	Windows (all)	Freeware	A tribute to the old Robocop side-scrolling shoot-em-up games
Sacred Armour of Antiriad	Install_antiriad.exe	Arcade adventure	5,644Kb	Windows (all)	Freeware	Search for the ultimate weapon in this classic PC remake
Scumball	scumball1.zip	Platform game	1,634Kb	Windows (all)	Freeware	Help LINDA explore the sewer and destroy the slime
Sir Fred	LordFred4.zip	Classic remake	454Kb	Windows (all)	Freeware	A great looking remake of Sir Fred
Sodajunky	Soda Junky 1 & 2.zip	Arcade action	3,477Kb	Windows (all)	Freeware	Take control of Sammy Bottlecap and eliminate all the enemies
Solomon's Key	solom.zip	Puzzle game	731Kb	Windows (all)	Freeware	Remake of the classic puzzle game. Includes built-in level editor
Space Taxi 2	spacetaxi10.exe	Classic remake	9,270Kb	Windows (all)	Demo	A modern remake of the popular Commodore 64 game
Super Baggage Handler	SuperBH.zip	Puzzle game	2,339Kb	Windows (all)	Freeware	Stack as many cases as possible in this colourful puzzle game
Teppey	teppey140.zip	Puzzle game	345Kb	Windows (all)	Freeware	A clever cross between Tetris and Pipemania
TV Pong	pong.exe	Classic remake	193Kb	Windows (all)	Freeware	Features four TV games - Pong, Soccer, Squash and Tennis
Ultra Flexball 2000	flexball.zip	Bat and ball game	1,838Kb	Windows (all)	Freeware	Fun remake of the old bat and ball games. Includes level editor
Vorton	vorton-windows-beta2.zip	Shoot-em-up	1,765Kb	Windows (all)	Freeware	A great-looking remake of Highway Encounter
Wild West Hero	wwh.zip	Shoot-em-up	1,320Kb	Windows (all)	Freeware	A Robotron-style game with a western theme
Wire Hand Redux	wirehangredux.zip	Platform game	355Kb	Windows (all)	Freeware	Addictive platform game
Wizball Breakout	wizzy.zip	Bat and ball game	9,288Kb	Windows (all)	Freeware	Updated version of the old bat and ball game

Spectrum game endings

Title	File Name	File Type	File Size	System	Type	Description
Endings A-E	Endings A-E.zip	File archive	24,226Kb	Windows (all)	n/a	From 180 to Exolon
Endings F-J	Endings F-J.zip	File archive	20,765Kb	Windows (all)	n/a	From Fahrenheit 3000 to Jungle Trouble
Endings K-O	Endings K-O.zip	File archive	11,702Kb	Windows (all)	n/a	From Kung Fu Master to OutRun
Endings P-T	Endings P-T.zip	File archive	32,260Kb	Windows (all)	n/a	From Pacmania to Turbo Esprit
Endings U-Z	Endings U-Z.zip	File archive	3,155Kb	Windows (all)	n/a	From Underwurlde to Zub

Superior demos

Title	File Name	File Type	File Size	System	Type	Description
Galaforce Worlds	galaforceworldstrialsetup_s10015.exe	Shoot-em-up	4,328Kb	Windows (all)	Demo	Destroy alien invaders in this two-player space shooter
Pipeline Plus	pipelineplustrialsetup_s10015.exe	Adventure game	4,846Kb	Windows (all)	Demo	Adventure game that takes place on the moons of Jupiter

Ravenskull	ravenskulltrialsetup_s10015.exe	Adventure game	3,565Kb	Windows (all)	Demo	A massive castle adventure with RPG undertones
Repton 1	repton1trialsetup_s10015.exe	Maze game	6,231Kb	Windows (all)	Demo	A PC update of the classic BBC title Repton
Solid Spheres Deluxe	solidspheresdxtrialsetup_s10015.exe	Puzzle game	4,324Kb	Windows (all)	Demo	An award-winning puzzle game with 85 challenging levels

Trygame demos

Title	File Name	File Type	File Size	System	Type	Description
Beach Head Desert War	BeachHeadDesertWar.exe	Shoot-em-up	18,336Kb	Windows (all)	Demo	Destroy the enemy fprces in this update of Beach Head
Galactic Teddy	GalacticTeddy_Setup.exe	Puzzle game	5,103Kb	Windows (all)	Demo	Help Teddy find the Life Stone and save his planet!
Monopoly	MONOPOLY.exe	Board game	116,328Kb	Windows (all)	Demo	The classic board game brought to life on your PC
Orbz	orbz_trymedia_210.exe	Arcade action	15,437Kb	Windows (all)	Demo	Explore colourful 3D worlds in this clever arcade action game
Worms 2	Worms2.exe	War game	51,383Kb	Windows (all)	Demo	The sequel to one of the all-time great multi-player games

Emulators

Title	File Name	File Type	File Size	System	Type	Description
Caprice32	cap32_361.exe	Amstrad CPC emulator	375Kb	Windows (all)	Freeware	An excellent Amstrad emulator that runs all CPC games
Gens	wgens211.zip	Megadrive emulator	381Kb	Windows (all)	Freeware	Perhaps the best Megadrive emulator. Supports Mega CD games
Mame32	Mame32_Binary.exe	Arcade emulator	5,166Kb	Windows (all)	Freeware	The original, and best, arcade emulator. Windows GUI version
Model B	modelb-dx8.zip	BBC Micro emulator	1,670Kb	Windows (all)	Freeware	Easy to use emulator runs just about every BBC game available
Q-emuLator	QemuL.zip	Sinclair QL emulator	447Kb	Windows (all)	Shareware	Impressive Sinclair QL emulator for Windows. New version
Raine	rainew-0.40.5.zip	Arcade emulator	1,466Kb	Windows (all)	Freeware	Alternative to MAME. Includes support for 1oos of classic games
ScummVM	scummvm-0.6.1-win32.exe	Game emulator	1,301Kb	Windows (all)	Freeware	Stand-alone version of open source adventure game emulator
Spectaculator	Spectaculator625.exe	Spectrum emulator	2,724Kb	Windows (all)	Shareware	The most advanced Spectrum emulator available
Steem	steem_v3_1.zip	Atari ST emulator	817Kb	Windows (all)	Freeware	This new emulator runs all of the standard ST software
VisualBoy Advance	VisualBoyAdvance-1.7.2.zip	GBA emulator	598Kb	Windows (all)	Freeware	Without doubt the best GBA emulator available. Don't ignore it!
WinUAE	InstallWinUAE0990.exe	Amiga emulator	1,166Kb	Windows (all)	Freeware	The classic Amiga emulator, updated to run on Windows
WinVice	WinVICE-1.14.zip	Commodore emulator	3,539Kb	Windows (all)	Freeware	The ultimate Commodore emulator. Supports many models

Extras

Title	File Name	File Type	File Size	System	Type	Description
Back in Time 2004 trailer	backintime2004.zip	Video file	18,681Kb	Windows (all)	n/a	Lee Bolton's teaser trailer for the Back in Time Live 2004 event
Mega-tree archive	Mega-tree archive.zip	File archive	1,316Kb	Windows (all)	n/a	Archive containing Mega-tree disk images, sprites and sketches
More Tea, Vicar?	MTVDemo.zip	Game preview	21Kb	Spectrum	n/a	Demo of Jonathan Cauldwell's latest game from Cronosoft
Retro Gaming Radio	rgr1103.zip	Radio broadcast	41,761Kb	Windows (all)	n/a	Full episode of Retro Gaming Radio in MP3 format
Turrican 3 demo	turrican3demo.zip	Game preview	4,090Kb	Commodore 64	n/a	Playable demo of Turrican 3, plus rolling demo video

Utilities

Title	File Name	File Type	File Size	System	Type	Description
DivX Bundle (98/Me)	DivX52ME98.exe	Video utility	7,767Kb	Windows 98/Me	Freeware	DivX video codec and player bundle. Version for Windows 98/Me
Divx Bundle (2K/XP)	DivX52XP2K.exe	Video utility	7,858Kb	WIndows 2000/XP	Freeware	DivX video codec and player bundle. Version for Windows 2000/XP
WinZip	winzip90.exe	Archive manager	2,318Kb	Windows (all)	Shareware	Use this archive manager to access the .zip files on the coverdisc

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Commodore 64 SCART cable – 2m, high quality, fits C64, C128, SX-64, VIC-20, Plus/4, etc. £8 + £1 postage. PayPal or Nochex accepted. Phone 07713 630087 or email jp.hayward@virgin.net

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Tower Of Babel for Amiga – UK version, boxed with instructions and in good condition. £2 + P&P. Email me for photo garethcrowley@amiga.e7even.com

Wanting the latest C64 software? – Protovision is for you! Check us out at www.protovision-online.de

Ms. Pac Man Boxed for the Commodore 64 – On Cartridge, still sealed, £8.00 + P&P. Email ants2000@hotmail.com

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Bards Tale 2: Destiny Knight – For the Amiga wanted, fair price paid. Please email me at billybass_no1@hotmail.com

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Off The Wall (for Atari VCS) – UK version, boxed with instructions. Like new. £4 + P&P. Rated 5 in the rarity guide by www.atariage.com! Email me for photo. garethcrowley@amiga.e7even.com

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Phantasy Star II for Megadrive – Boxed UK version and in pretty good condition. £8 + P&P. Email me for photo garethcrowley@amiga.e7even.com

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Strider for the Megadrive – Either import or UK version Please email your price to levydavid5@aol.com

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Gamepark 32 BLU Full European Spec – Comes with English manual & software. purchased 9th July 04. I Will supply a 16Mb card with it. Boxed complete £140 o.n.o. Don't miss this bargain, email me now – excalibur@excaliburs place.com

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We are a Group aimed at getting a retro gaming championship held in the UK – For further details email rosswillett69@hotmail.com or log onto http://uk.groups.yahoo.com /group/UKretro_championships

Sharp MZ-80 wanted! – Must be in working order. Cosmetic condition is not important so long as it works. Please email myretroattic@yahoo.com

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eMag

Starting next month...

The top 100 games EVER! (As voted for by you)

The countdown begins...

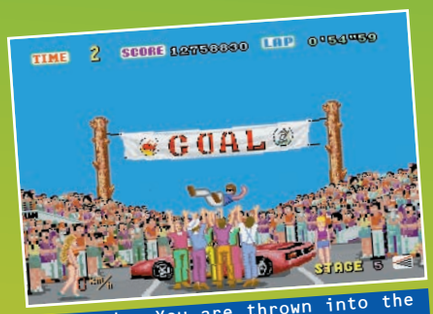
100 to 51 in Retro Gamer issue 8

On sale September 28th 2004

RETRO GAMER

Endgame

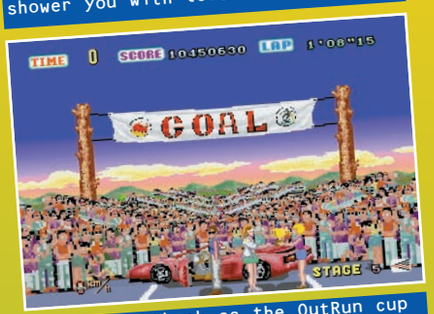
Sega's Outrun. Five routes – five different endings...



Vineyard – You are thrown into the air by suspicious-looking admirers

Death Valley – Your Ferrari crosses the finishing line and falls to bits

Desolation Hill – Arabian ladies shower you with love



Autobahn – Shock as the OutRun cup is given to your nagging girlfriend

Lakeside – Justice is restored as the cup is handed to its rightful owner